

HISTORY OF DENTISTRY IN CLEVELAND, OHIO

HENRY LOVEJOY AMBLER

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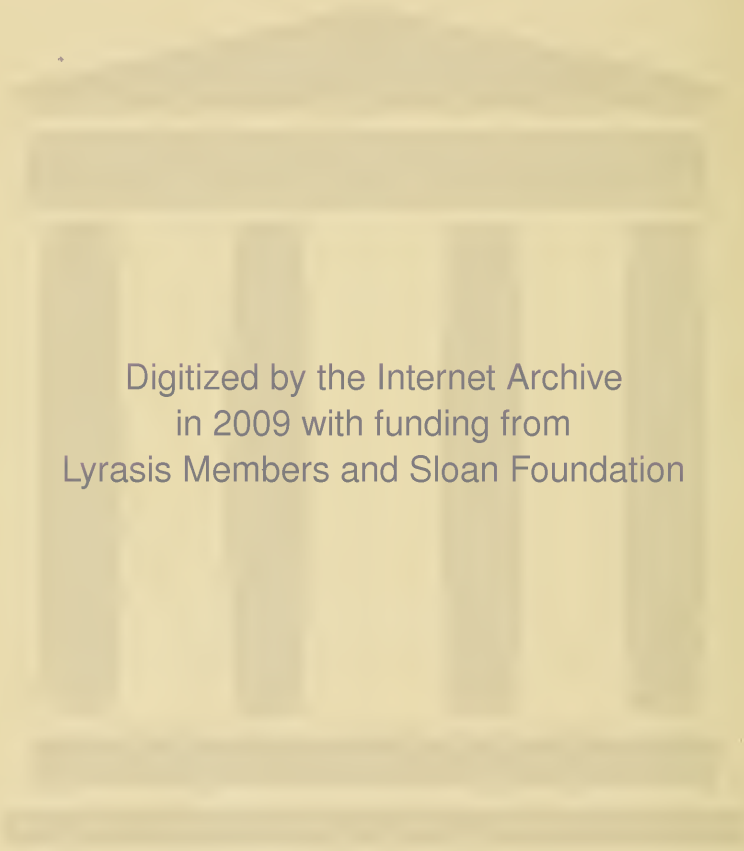
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DR. H. I. AMBLER

HISTORY OF DENTISTRY

IN

CLEVELAND, OHIO

BY

HENRY LOVEJOY AMBLER, M. S., D. D. S., M. D., D. Hist.

AUTHOR OF

TIN FOIL AND ITS COMBINATIONS FOR FILLING TEETH

FACTS FADS AND FANCIES ABOUT TEETH

HISTORY NORTHERN OHIO DENTAL ASSOCIATION

HISTORY DENTAL PROSTHESIS

AROUND THE WORLD DENTISTRY

MEMBER

NATIONAL, OHIO STATE, NORTHERN OHIO, CLEVELAND CITY,
WEST VA., DENTAL ASSOCIATION

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OHIO STATE AND CLEVELAND CITY DENTAL SOCIETY

FORMERLY DEAN DENTAL DEPARTMENT

PROFESSOR OPERATIVE DENTISTRY, DENTAL HYGIENE,

DENTAL HISTORY, WESTERN RESERVE UNIVERSITY

CLEVELAND, OHIO

PUBLISHING HOUSE OF THE EVANGELICAL ASSOCIATION, C. HAUSER, Agent

1911

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Dedicated to
Charles Richard Butler, D. D. S., M. D.,
the author's lifelong friend

You are not obliged to read the Preface.

Preface

CLEVELAND DENTAL HISTORICAL FOOD.

Increase the specific gravity of your profession—and yourself—by reading some of its history.

THE writer has done considerable excavating in his time, and excavating dentistry from the newspapers and directories, from the first issue to the present time, has occupied all his odd hours for six years, but if it meets the approbation of the profession, he will feel amply rewarded. He has endeavored to bring about the articulation of past dentistry in Cleveland, with the present, believing that when empires have fallen and granite monuments crumbled, history will still exist.

Many of the old times and things in dentistry savor now of romance, and as we look down the line of the past, a mellow enchantment is cast over them.

The dental pioneers who practiced here labored under many disadvantages, but they blazed the way for the glorious oncoming of a great and numerous profession.

The history of dentistry will lead the public to appreciate the importance of the science and art, and it puts dentistry on a higher plane than before; it is an up-lift that lifts-up.

This volume does not contain every possible thing that could be found, but there is enough to show the trend of dentistry since its first introduction here. The "Ads." and cards of dentists during eighty-five years, give a good idea of the different men and their style of advertising, and in many cases,

show what the best men in the community thought of them. To write a local history and please everybody—to say the least—is difficult. It is often a delicate matter to decide what to put in “cold type,” as information is often unsatisfactory, and an unbroken chain of events should not be expected; there will be missing links which the writer regrets he cannot supply. The scant records of early times are only found in newspapers and directories, but valuable history can be found in the Transactions of the Northern Ohio Dental Association, 1857, by the writer, who also has examined all the books relating to Cleveland and Cuyahoga Co., but he gained very scant information about dentistry.

In some cases biographical sketches could not be procured, but if you do not find the information desired, in the sketches, perhaps you can in the “Ads.” from newspapers and directories. An effort has been made to secure descriptions of inventions and discoveries which have been made by Cleveland dentists, but we feel sure and sorry that we have not gathered all of them. Among the lofty shafts of gratitude which American dentists will eventually raise, will be one to the pioneers and historians, as a tribute to their merits and the services they have performed.

Our thanks are due W. H. Catheart, Pres., and A. M. Dyer Curator of the Western Reserve Historical Society for courtesies extended.

The author would be glad to be notified of any mistakes, *if* the notifier can present an affidavit to substantiate his correction.

Cleveland, O., 1911.

HENRY LOVEJOY AMBLER.

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BENJAMIN STRICKLAND



S. P. HUNTINGTON



C. R. BUTLER



F. S. SLOSSON



B. F. ROBINSON



N. H. AMBLER



WM. T. ROBINSON



EBENEZER MERRITT



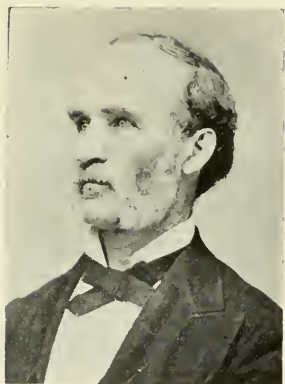
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J. A. ROBINSON



J. E. ROBINSON



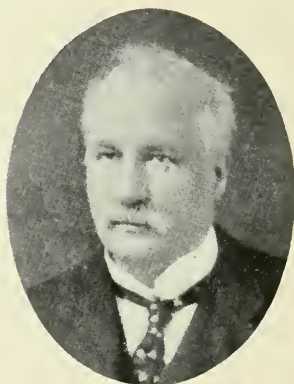
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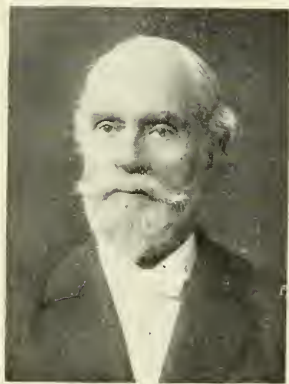
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WM. E. DUNN



CHAS. F. ALLAN



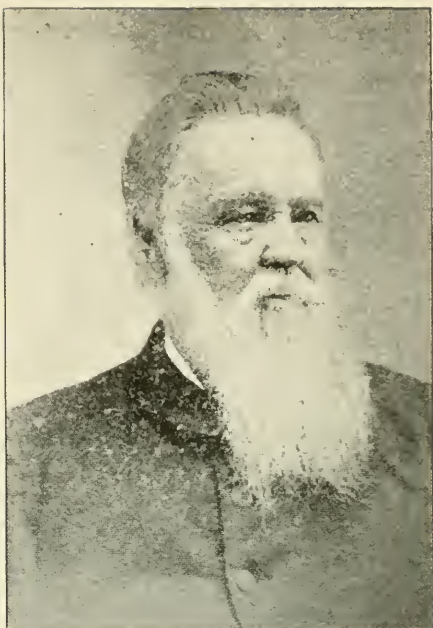
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R. R. PEEBLES



A. D. BIGELOW



H. P. BURDICK



CHAS. BUFFETT



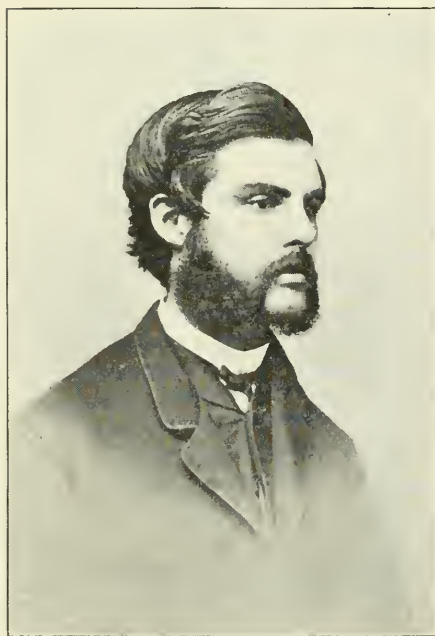
LEWIS BUFFETT



JOHN GREENFIELD



JOHN STEPHAN



FREDERICK K. THORPE



ROYAL W. VARNEY



N. M. BECKWITH



PORTER GRANGER SOMERS



DAVID R. JENNINGS



THEO. W. ENSIGN



J. T. BARCLAY



VOLNEY MC ALPIN



I. E. SAMPSELL



J. FREED WARK



C. R. EDSON



M. J. DICKERSON



B. T. SPELMAN



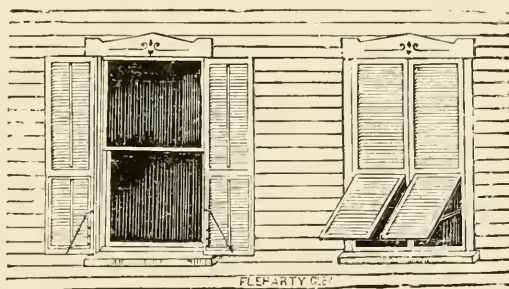
MARTHA R. EWALD

Biographical Sketches and Notes

F. H. ACKER graduated from Dental Department Western Reserve University 1895, and for two years was assistant professor Pathology in above department.

H. L. AMBLER was probably the first one in this section to use cataphoresis, for on Dec. 5, 1895, he purchased a "Wheeler Fractional Volt Seleeter" for that purpose and has been using the method more or less ever since.

He invented a left hand assistant which is made by The S. S. White Co., it is used by slipping the ring over the second finger of the left hand, letting the point of the instrument rest



on the gold or tin foil when starting a filling with the hand mallet. His cylinder roller in the form of a diminutive tuning-fork, and also the Ambler drills for the dental engine are manufactured by the above firm. The way in which these drills are shaped, gives them an unusual amount of cutting edge. His set of three knives for dental use are manufactured by the Cleveland Dental Mfg. Co.

His "Wooden Awning Window Blind" was patented Dec. 10, 1878 and is a combination of a blind and awning.

His "Table Markers," or Numbers, were patented Mar. 5, 1897; they are made of flat pieces of spring-steel with numbers on them, or cut through them, and can be attached to any table and detached at will and are indestructible. Used for cafes, clubs, card parties, etc.

He first suggested the appointment (by the Pres.) of a "critic" for the Cleveland Dental Society, and he has had the honor of holding the position for seven years. He wrote articles for the "Ohio Farmer" Mar., April, June, 1871, on Teeth and Their Preservation, and in May and June 1872, A Visit to Mammoth Cave, Ky., and for "The House and Garden," Jan. 1872, on Care of the Teeth, and also numerous other articles for dental journals.

Oct. 5, 1908, ladies' night, he gave a stereopticon talk on "Dentistry in Foreign Lands," before the Cleveland Dental Society; repeating it before the West Va. State Dental Society.

In 1872 he introduced Filo-silk—Japanese floss—to be used instead of the ordinary floss, for placing the rubber-dam, polishing between teeth, and testing proximal surfaces of teeth or fillings.

HENRY BARNES was born in Stockport, Eng., 1851, came to U. S. with his parents and resided in Pawtucket, R. I., and Fall River, Mass., where he attended public and also night schools, then he came to Cleveland in 1870 and was a dental student of John Stephan's until June, 1873; during this time he attended the private anatomical class of Prof. H. W. Kitchen. Practiced in Marquette, Mich., 1873-77, and while there studied medicine in office of Geo. H. Northrop, then returned here to practice and attend lectures of Drs. Scott and Lowman, at Wooster Medical College. Licensed by Ohio State Board Dental Examiners in 1879, and joined State Dental Society. In 1888 invented a tin matrix, double tin matrix, tin labial clamp and shield; described in Ohio Journal Dental Science. In 1892 Prof. Dental Anatomy and Technic Dental Dept. Homoeopathic Hospital College, where he received the honorary M. D., 1893. Introduced celluloid film in strips for polishing amalgam and cement fillings, and also for matrices, and called attention to abrasion of the teeth caused by the brush. Pres. State Board Dental Examiners 1902-7. In 1905 gave the technic for making pure gold inlays by sweating.

the metal into a platinum matrix, which had been formed in a tooth cavity, by use of wooden sticks (no investment of matrix).

In 1910 gave the technic for making inlays by using Ney's non-cohesive gold foil for a matrix, and sweating into it twenty-two carat gold plate. He devised a special book for keeping the record of members of dental societies.

VARNEY E. BARNES, Dent. Dept. W. R. U., 1899. Demonstrator Prosthesis and Orthodontia, 1899-1901, and chief of these clinics in above Dept.

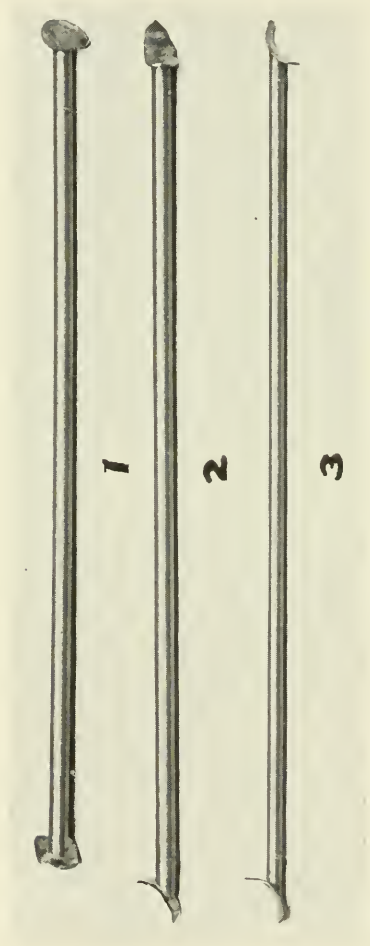
When Rec. Sec. Cleveland Dental Society, he introduced a new style of book in which the records were typewritten, with marginal references. Practice limited to Orthodontia.

J. R. BELL was born in Orange O., Feb. 1, 1853, his youthful days were passed on his father's farm, and his preliminary education acquired in the public schools, and Geauga Seminary; later he entered Hillsdale College, Hillsdale, Mich., "earning his way" by teaching part of the time. He came here 1872 and studied dentistry with B. F. and J. E. Robinson, and attended the Cleveland Medical College during two sessions and received a certificate for anatomy, physiology, chemistry, materia medica and surgery; in 1876 graduated from Ohio Col. Dent. Sur., where he assisted in the clinics; then he came here and opened an office, and has been continuously in practice. In the Homeopathic Hospital College, later Cleveland University of Medicine and Surgery, he lectured for nine years on dental surgery and also operated in the infirmary.

He devised trays for taking impressions in wax or dental lac, when making gold or porcelain inlays, which are specially useful for labial, buccal or distal cavities extending under the gingivae. These trays are rights and lefts, but with slight changes are universal, No. 1 is for use on anterior teeth and is made viz.: a piece of twenty-six gage tin is cut large enough to cover the cavity, and after contouring it to conform with the tooth, take a piece of German silver wire twelve gauge, and file one end at an angle of forty-five degrees, and soft solder it to the center of the tin. Now the tray can be accurately adapted and polished so that the edge will pass under the free margin of

the gingiva; warm the wax and place it in the cavity, then apply the *moist* tray.

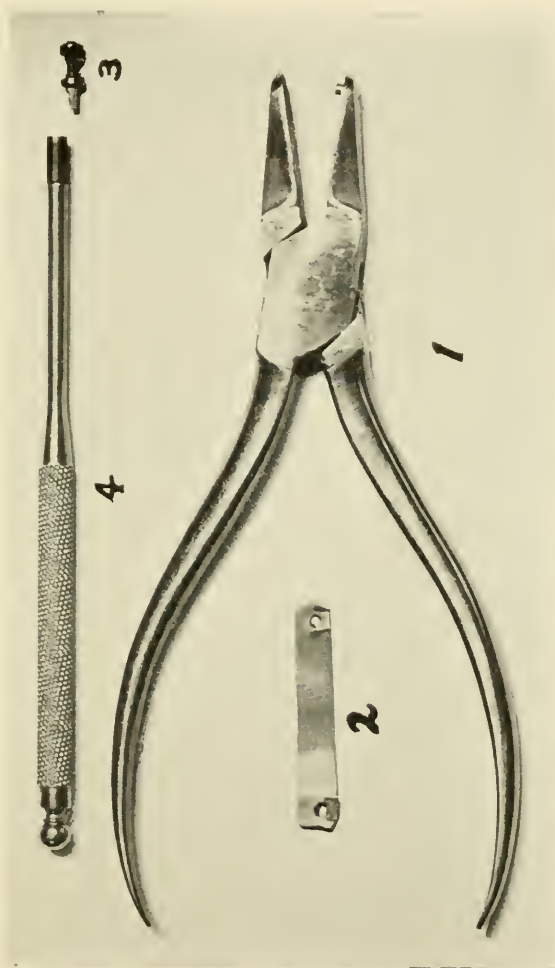
Nos. 2, 3, are for large buccal cavities in molars, so a piece of twenty-six gage tin, slightly larger than the cavity, is used,



J. R. BELL—SET OF TRAYS FOR TAKING IMPRESSIONS

with a handle of fourteen gage wire soldered to the center of the tin at a convenient angle; the tin can be bent to conform to the bifurcation.

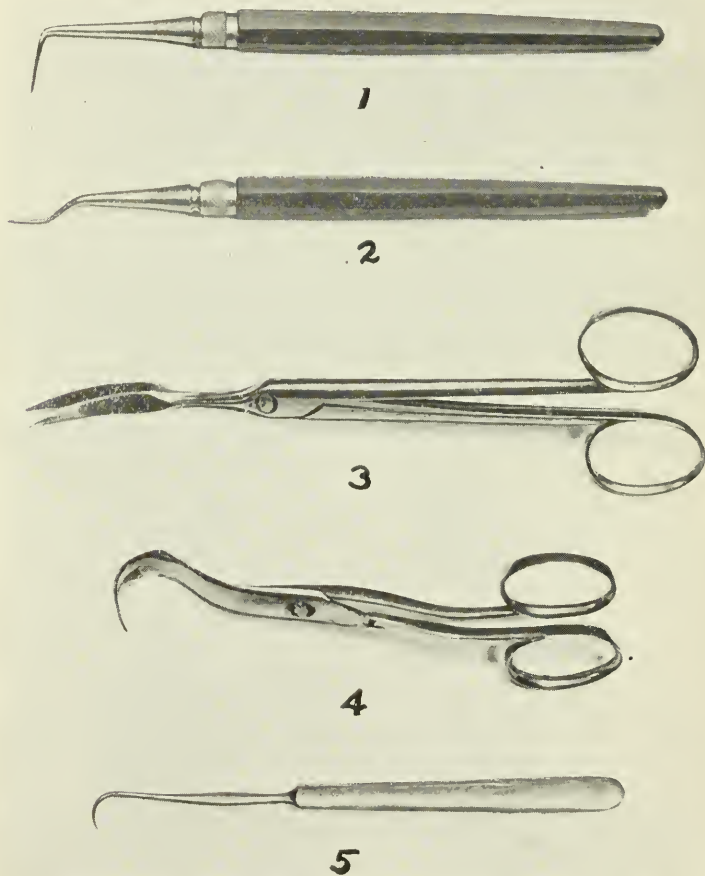
For bucco-occlusal trays, the handle is attached on the buccal side, and for disto-occlusal and mesio-occlusal trays, it is attached on the occlusal side.



J. R. BELL—SET OF MATRIX INSTRUMENTS

His matrix set consists of a pincher, punch, wrench, bolt and nut, and sheet brass. Directions for making: cut a piece of sheet brass thirty-two or thirty-four gage, wide enough to allow for trimming, one-half inch longer than the diameter of the

the tooth, adjust around the tooth and pinch the ends together with the thumb and finger; remove and cut a slit one-sixteenth of an inch long in each end, now fold these slits inward, and punch through for bolt one-third of the distance from cervical



J. R. BELL—SET OF INSTRUMENTS FOR REMOVING TOUGH TISSUE FROM
PARTIALLY OR COMPLETELY COVERED THIRD MOLARS

border and at a bend in the band made by having pinched the band together, then insert the bolt and nut, place the band on the tooth again and tighten it with the wrench. By punching

the band as indicated four thicknesses have been pierced, two on each end of the band, thus providing for double tension at the cervical portion of the tooth. Fig. 1 shows the punch.

By punching through the edge of the folded band, one-half of the head and nut of the bolt—cervical side—will rest on extra thicknesses around the cervix; place the nut beveled side first, then it will not slip when tightened. Fig. 2 shows band after folding, cutting and punching. Fig. 3, bolt; Fig. 4, wrench.

After filling, unscrew and remove bolt and nut; straighten the band somewhat and remove it. If amalgam is used, let it be medium quick setting mixed stiff; thus avoiding amalgamation with the brass matrix. The matrix can be made slightly crescent-shaped, then by placing the concave portion at cervix, when the band is tightened it will bear on the cervical portion of the tooth first.

He also devised a set of four instruments for removing tough tissue from partially or completely covered third molars. Fig. 1 is a lance with blade at right angles to the shaft, designed to sever the tissue by an incision between the second and third molar. Fig. 2 is bayonet-shaped with a blunt, smooth blade which is forced into the incision made by Fig. 1, between the tissue and the imbedded tooth, thus raising the tissue. Fig. 3, scissors with long blades and beaded points (universal), are used by forcing one blade into the opening made by Fig. 2 and a cut is made along the buccal side; another cut is made in the same way, only on the lingual side. Fig. 4, scissors with circular blades and beaded points, used to make the fourth and final cut at the distal margin of imbedded tooth. Fig. 5, tenaculum for thrusting into the cut flap to hold and remove it when Fig. 4 is applied from the lingual side far enough buccally, so that when the "clip" is made, a square of tissue is removed.

In 1895 when he was in Jerusalem he secured a gavel, made of olive-wood from the Mt. of Olives, which he presented to the Cleveland Dental Society.

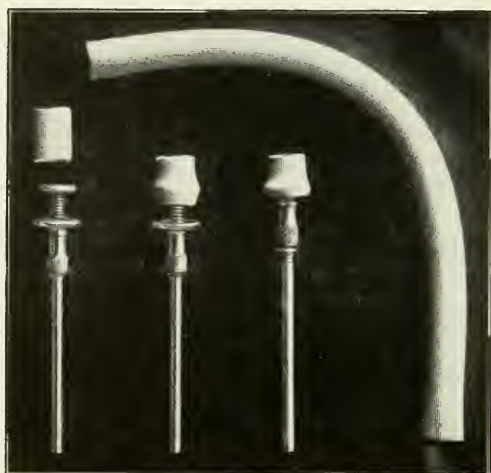
G. E. BISHOP says: "On Dec. 6, 1907, I first used a bucket for casting gold inlays by centrifugal force. The principle involved being, that whatever the size of the cast, the bucket method would allow the mass of metal to take a lower plane

without being spilled. The instrument used was a bar, attached to a dental lathe, on one end of which was a bail with a swinging bucket."



DR. BISHOP'S ASEPTIC RUBBER DAM HOLDER

Bishop's aseptic rubber-dam holder was invented in 1906, and the shape is such that it practically circles the mouth, a smooth flat surface resting on the face. It is easily applied and sterilized, and universal in adaptation.



DR. BISHOP'S MANDREL

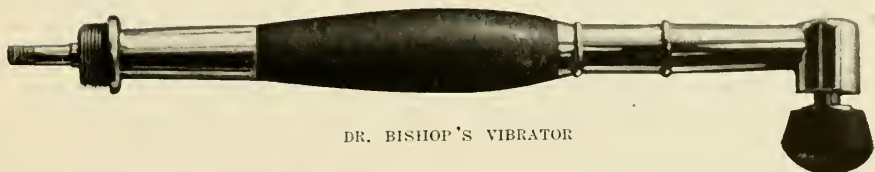
Another invention of his, is a mandrel, which carries a short piece of rubber tubing, thus constituting a cup, with a solid base and elastic edges, that will carry polishing material in its center without flying out. Patent applied for 1907.

His Handy Left-Hand Assistant, is a tongue and cheek protector and napkin holder, for universal application, invented 1907.



DR. BISHOP'S LEFT HAND ASSISTANT

Bishop's Dental Vibrator can be attached to any engine and is used to apply vibration or mechanical massage to the



DR. BISHOP'S VIBRATOR

gums, lymphatics, and bony tissue in pyorrhea; also for headache, facial neuralgia, cramps of the muscles or jaws, etc., invented 1907.

He says, that in the summer of 1890, when a dental student in Philadelphia, he suggested to his brother, H. D. Bishop, the idea of establishing a dental department in connection with the Homeopathic Hospital College in Cleveland; his brother being a member of the Faculty recommended the suggestion to his associates and the department was established 1891.

L. L. BOSWORTH, July 14, 1903, patented an Electric Dental Engine in U. S.; Feb. 7, 1905, Electric Porcelain Furnace, U. S., England, France, Germany; Feb. 7, 1905, Electric Soldering Furnace, in same countries. Invented a pyrometer, operated by the expansion and contraction of pure platinum; a casting machine operated by centrifugal force combined with gravity, using plaster of Paris for an investment; an electric appliance with a maximum temperature of 355° F. for drying plaster investments, and also the equipment for casting by this method; several electric controllers for the operation of various devices on direct and alternating currents at different voltages; an electric steam generator for heating purposes; a method of administering nitrous oxid, oxygen and atmospheric air combined, to maintain a state of analgesia during the preparation of sensitive teeth for filling, etc., this he used three years in Cleveland before going to Berlin, Germany, where he is using the method with good success, his paper on the subject appeared in *The Dentists' Magazine*, Dec., 1906; now trying to devise a method for successfully casting entire dentures of twenty-one carat gold, with comparatively no expansion or contraction.

I. W. BROWN says: "In the year 1894, I commenced to use spray in the mouth by compressed air system, with the Davis Atomizer. I was the first to use it as far as I was aware at that time. In 1896 I demonstrated it before the Ohio State Dental Society and I did not meet any one there who had used it or had seen it used before in that way. I gave Dr. J. Taft a practical demonstration and he said that he had never seen anything like it before."

A. I. BROWN graduated from Dental Department W. R. U., 1904; demonstrator Operative Dentistry 1905; Professor Materia Medica and Therapeutics, 1906, in above department.

CHARLES RICHARD BUTLER was born in Portage Co., O., 1832, worked on a farm and later as a brass and bell founder, came here in 1854 and studied dentistry with M. L. Wright and W. H. Atkinson, and surgery with Elisha Sterling, he was graduated from Pa. College Dental Surgery in 1858, and from the Cleveland Medical College—now Medical Department Western Reserve University—in 1865. He was the first Professor of Clinical Operative Dentistry in the country, as the Ohio College of Dental Surgery created this “chair” for him in 1867, he also taught Steel Technics in above college.

Dean of the Dental Department W. R. U. 1892, Ex-president American Dental Association, Ohio State Dental Society, Northern Ohio Dental Association and Cleveland City Dental Society; Mem. Odontological Society, N. Y. City, and Illinois State Dental Society.

In 1857 when he went to dental college he took pluggers and excavators of his own manufacture and a mallet with an ivory head and ebony handle, and he was called the “hammer and punch man,” because he used the hand mallet for condensing gold foil. In 1860 he made a mallet of a cylinder of laurel-root filled with lead and tin melted together, and the handle was of live-oak taken from the battleship Kearsarge when she was dismantled.

Before the dental engine (1868) was used, he made a set of burs for cutting down gold fillings, and they were called “Plug Finishing Burs.” In 1868 he made a set of fifteen hand mallet pluggers, and in 1878 another set of eight; in 1881 a set of six rapid excavators; in 1896 a set of five chisels, called Improved Proximal Enamel Cutters.

Duplicates of all the above instruments have been furnished to the profession by S. S. White, and he is the only manufacturer, Dr. Butler, ever furnished with models. The pluggers, chisels and mallet are referred to in the American System of Dentistry in the chapter by Louis Jack.

The instruments are still on the market, and they have been copied by different manufacturers, possibly in some cases, with slight variations then the name has been changed; they were also made as cone-socket pluggers and excavators, and varied in price from fifty cents to one dollar and a quarter.

He is an expert in precious stones and often produces novel and artistic designs in which he mounts them.

Beginning with 1873 appointment cards (in part) viz.: Drs. Butler and Ambler, office hours, 9 to 4. Notice is required three hours in advance if unable to keep this appointment, or the fee will be charged. Fee for ordinary operations five dollars per hour. All bills to be paid promptly at the office. Appointments made from 12 to 1. The bill head, viz.: Drs. Butler and Ambler, 519 Euclid Ave., beg to announce that their fee for professional services is—— to date——.

An invitation to a complimentary dinner tendered to him by the dental profession reads, viz.:

“Dear Doctor, you are cordially invited to attend a complimentary dinner to be tendered to Doctor Charles Richard Butler by the dental profession of Cleveland, on the completion of fifty-four years of honorable dental practice, at the Hollenden Thursday, March eleventh at seven o’clock, 1909, S. B. Dewey, Secretary.”

It was truly a great occasion and will ever be remembered by those present.

FRANK M. CASTO was born at Blanchester, Ohio, May 30, 1875. His early education was received in the public and high schools. Previous to studying dentistry he was employed on the Baltimore & Ohio Railroad at various places as telegraph operator and station agent. He graduated from the Dental Department of Ohio Medical University in 1898, and during his Junior year passed the examination of the State Board of Dental Examiners, and received a license to practice early in 1897. He graduated from the Medical Department of the Ohio Medical University in 1900, and received a license to practice medicine and surgery June, 1900. He graduated from the Pharmacy Department of the Ohio Medical University and from the Angle School of Orthodontia in 1902. He first entered the practice of dentistry at Plain City, Ohio, in 1897, remaining there about six months, then he returned to Columbus to finish his dental studies. He began the practice of dentistry in Columbus in 1898. Alternating between practicing dentistry and pursuing his medical studies until 1900, when he graduated in medicine, after which time he continued the practice of dentistry includ-

ing Orthodontia and Prophylaxis until 1904, when he entered the exclusive practice of Orthodontia in Cleveland where he is now located.

He has been associated in College work as follows: Dental Department of the Ohio Medical University, Special Lecturer in Crown and Bridge Work 1898-1899. Assistant Professor of Operative Dentistry 1899-1900. Professor of Orthodontia 1901 to 1905 inclusive. Superintendent of Clinic 1901-03. Clinical Orthodontia 1903-05. Dental Department Western Reserve University. Professor of Orthodontia 1904-07.

INVENTED AN ACETYLENE BURNER.

This invention relates to an improvement in gas burners such as are employed for heating purposes in connection with stoves and the like and has particular regard to the provision of a burner of the character noted wherein acetylene gas may be utilized. A burner of this character has a large and even heating capacity, and is simple and durable in construction. Patented June 7th, 1910.

Member of the Delta Sigma Delta Dental Fraternity, the Alpha Mu Phi Omega Medical Fraternity, Theta Nu Epsilon Inter-fraternity, Member Northern Ohio Dental Association, Cleveland Dental Society, Ohio State Dental Society, St. Louis Society of Dental Science, American Society of Orthodontists, Cleveland Academy of Medicine, Ohio State Medical Society, American Medical Society, Cleveland Medical Library. A 32 Degree Mason, Knight Templar, and Shriner. Past President The American Society of Orthodontists.

J. A. COATES graduated from Dental Department W. R. U., 1902, and was demonstrator of Operative Dentistry in above Department several years.

S. B. DEWEY, Dean and Professor Dental Histology, Pathology, Embryology, Dental Department Cleveland University Med. and Sur. during its existence; also devised a useful bicuspid crown.

EDW. J. DOUET while a boy in grammar school started out with mechanical work, first making a turning lathe with foot-

power drive; his first great undertaking was to make a bicycle, one of the old style ordinary, or high wheel bicycle with a fifty-eight inch wheel. When one considers that he could not buy parts, as a boy could today, but had to fashion ball bearings, rims, spokes, etc., it seems a bold attempt for a lad of seventeen. That the machine was at least durable, three years of service will attest.

While in the medical department of the Western Reserve University he made speculums and special instruments for Dr. H. H. Powell and some of the other professors from drawings they submitted to him. This was in 1883-5.

He entered dentistry in 1882 and is still following that profession, but at odd times has invented several things: one of the first was the double diamond frame "safety" bicycle, copied by the Lozier and Columbia Companies; the drop frame ladies' safety in use today was designed by him for the Snell Cycle Fittings Company, of Toledo.

He made and developed the first Garford saddle for high wheels, also the safety saddles, working with Mr. A. L. Garford. Later he designed and made the first double tubular sulky frame with pneumatic tires and ball bearings. Today this is the sulky used in racing. From his designs were made the first tubular attachments to convert the old high wheel type of racing sulky to the pneumatic wheel.

In the Dental line, the first ball bearing dental engine complete, including hand piece, was his device, he also changed the tedious method of screwing down vulcanizer tops by inventing the first cam lock; this is now found in all vulcanizers as the best for dental purposes. In this connection he made the only solid drawn copper pot ever used in a vulcanizer. His other inventions and patents for dental engines, are a slip joint, a Disc Mandrel, and an Engine Mallet. His latest hobby is along marine lines, gas engines and boats, he built his racing boat, "The Skate," doing all the work on the hull alone, and assembling and developing the engine.

J. C. Dowd began practice here 1886 and practiced until 1907, but during this time he was away for six years, then returned. He attended the Homœopathic Hospital College 1887-

8-9 and in 1907 retired from practice and formed the Cleveland Dental Supply Co., Rose Bldg.

FRANK DOWD began practice in Jamestown, N. Y., 1882, where he invented, and practically used the first fixed bridge-work done in that place.

In 1884 J. E. Cravens of the Indiana Dental College appointed him as demonstrator of bridge-work, and he says this was the first college to teach crown and bridge-work. In 1885 he graduated from above college and was the first Dowd to receive the D. D. S., then he came here and practiced crown and bridge-work, and taught dentistry to his wife M. A. Dowd; son H. H. Dowd; present wife K. H. Dowd; brother J. C. Dowd; these were the only dentists by the name in the U. S., Canada or Mexico until 1900. In 1885 he invented an all-cord, suspension dental engine. He devised a crown-slitter, which consists of a pair of forceps to which is attached a rotary wheel with knives in the outer edge which work with great ease.

In 1911 he devised a set of instruments for attaching crowns to roots so that the pin will not bend and permit an open joint between the crown and root.

His patent safety device consists of buffers which arise from the track and prevent cars from passing by them. This device was accepted by the City R. R. Co.

In 1911 he patented a vehicle wheel, which consists of a series of spiral springs within the rubber tire; this takes the place of the pneumatic tire on automobiles, as a puncture at any place will not affect the working of the wheel.

W. G. EBERSOLE was born in Carrollton, O., Nov. 18, 1864, and attended the grammar and high school, and during vacation superintended a brick plant, and later attended Ohio Normal University at Ada, then studied law in Carrollton for one and one-half years. Abandoning law, he traveled five years for G. Graham, founder of the Graham Anesthetic Co., introducing a preparation to the medical and dental profession.

Graduated from Dental Department 1896, Medical Department 1897 Western Reserve University. In Dental Department he was demonstrator of operative dentistry and lecturer on oral surgery for over two years. Several times before societies

he has read papers on "Humanitarian Dentistry" and in 1905 was chosen to edit the Department of Humanitarian Dentistry in the Dentists' Magazine published here for three years. In 1909 he was appointed chairman of the Committee on Oral Hygiene, National Dental Association.

President Cleveland Dental Society, 1910.

He had the assistance of J. R. Owens, W. A. Price, W. T. Jackman, and others, in introducing into Cleveland public schools, dental inspection and educational lectures, and six equipments (four for public and two for parochial schools) were secured and dental clinics established.

M. G. FURLONG invented Plastic Impression Rubber for re-fitting and refilling loose dentures, and for attaching teeth to new aluminum dentures. Patented applied for. On sale at Dental Depots.

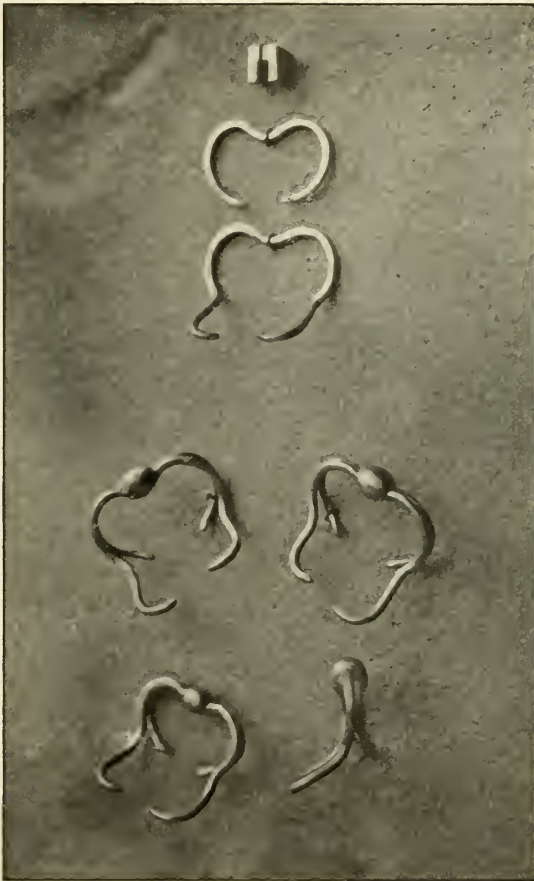
W. B. GEROW, graduated Dental Department Western Reserve University 1908, and Professor Orthodontia 1909 in this department. L. A. Krejci now occupies the chair.

HERBERT F. HARVEY was born in Herkimer County, N. Y., 1850. For two years he was in the sight department of the Remington Armory, Illion, N. Y., and for three years front fitting and adjusting machines for the Davis Sewing Machine Co., Watertown, N. Y., and afterwards a student of D. R. Jennings, Cleveland, 1876-79. He has practiced here since graduating at Michigan University Dental Department 1879. He invented a hot air syringe and chip-blower combined, Patented Nov. 24, 1896. The object was to provide a syringe with means of enabling the operator to supply an air blast of known and constant temperature. This was accomplished by the air being forced to pass through a spiral air passage enclosed in a copper bulb which could be heated as desired and the temperature of the air passing through it registered by means of a small thermometer enclosed in a glass barrel of the syringe.

He invented rubber-dam clamps made from piano-string-wire; one pair is for upper molars, another pair for lower molars.

These clamps are especially for those molars which are not completely erupted, or are very conical in shape, or have abnormal forms, but they will absolutely fit any molar.

The "Ohio Dental Journal," March, 1900, contains instructions about making and using them.



DR. H. F. HARVEY'S PIANO WIRE CLAMPS FOR HOLDING
RUBBER DAM ON THE MOLAR TEETH

He devised (1877) the sole-leather faced hand mallet, i. e., an ordinary cylindrical metal shell partly filled with lead or tin and faced with sole-leather.

He lectured on Orthodontia for several years at the dental department of Western Reserve University.

His improvement in the clamps noted, consists in doing away with the soldered metal grip and brazing the bows together so that there is a slight space between them most of the way; thus making them more sanitary. The brazing spoils the temper of the wire, and the whole clamp must be re-tempered.

J. W. HISEY says that he had a case in Feb., 1893, which he took to the Hospital of Oral Surgery in Philadelphia. It was of a boy fifteen years of age, who was bright, well educated and of good physique. He was afflicted with the most remarkable hypertrophy of the gingivae and alveolar process that (probably) has ever been known. The case was operated on by Professors J. E. Garretson and M. H. Cryer, and the Cosmos, June, 1893, contains a full description of the operation, and "Studies of the Internal Anatomy of the Face" by Prof. Cryer, contains a picture of the boy before the operation and also the portion removed from the upper jaw, Feb. 17, 1893. Another picture shows the portion removed from the lower jaw Mar. 11, 1893, and also the picture of the boy after both operations when the parts had completely healed. Artificial dentures were supplied in due time. Another picture six years later presents him as he appears when wearing the dentures with great comfort, and now (1911) he is still wearing them, and there has been no recurrence of the disease.

LUCY GERTRUDE HOFFMAN was graduated from the Dental Department Western Reserve University, Cleveland, after attending the regular course of three years; thus far she is the only female student who has ever attended this department; she came from Bellefontaine, O.

CHAS. E. HURD graduated from Dental Department Western Reserve University 1896, and for five years was first assistant in the Operatory and Laboratories; he was the first graduate to serve his Alma Mater.

W. P. HORTON was born October 28, 1823, in Pittsford, Vt., where he attended public school, and the high school in Wallingford, and the Seminary in Castleton; in the latter there was a

medical college where he attended lectures more or less in 1842-3; he also taught school several winters.

Came to Pittsfield, O., Oct. 22, 1844, and attended Oberlin College about two years.

In 1846 began the study of dentistry with G. B. Miner, Sylvania, O., they were somewhat itinerant in practice but they finally went to Milwaukee, Wis., where W. P. H. remained until 1847, when he returned to Ohio and taught school in the winter. From 1848 to the spring of 1851 he clerked in Pelton's store in Oberlin, then he went into the office of Miner and Ferris, Milwaukee, Wis., where he remained until fall, when they gave him a certificate stating that he was prepared to do anything in the dental line. Then he returned to Oberlin where he remained until July, 1852, when he came to Cleveland and entered the dental office of B. Strickland and worked for \$2.50 per day, after a time S. gave him one-third interest in the practice, and the first year they collected \$2,400.00. Partial dentures on gold were \$40.00 and full ones (upper or lower) \$50.00.

Cleveland Leader, March 7, 1911.

Dental Work.—I have been in business over forty years (59) in Cleveland. Satisfaction guaranteed. Best of references. Dr. W. P. Horton, D. D. S., 228 Osborn Bldg. Prospect and Huron Road. At present the oldest dentist in the city, and he has practiced here the longest.

WM. T. JACKMAN was born Oct. 31, 1858, in California, Pa., and attended the public schools, and later the Columbiana high and Lisbon normal school in Ohio. He was a pedagogue, and also student of Dr. C. E. Mason of Columbiana; graduated from Philadelphia Dental College 1887, but practiced under a state certificate in Waynesburg, O., 1880-87, since then he has practiced here. Professor Prosthetic Dentistry about three years in Dental Department Cleveland University of Medicine and Surgery; Editor Department Operative Dentistry in 'The Dentists' Magazine, 1906-7-8.

J. W. JUNGMAN devised a set of six "prophylactic sealers" in 1906; they are manufactured by the Cleveland Dental Co.

He was the first dentist here to limit his practice to prophylaxis and treatment of pyorrhea; this he began early in 1903.

H. C. KENYON for several years was Instructor and Professor Operative Technics and Dental Anatomy, Dental Department Western Reserve University and he invented a Compressed Air Casting Outfit designed especially for making gold inlays without using a matrix, but is also used for casting small partial plates, bridges, bridge "dummies," and retaining appliances for orthodontia and pyorrhea cases. Castings can be made with any metal or alloy, from Melotte's metal to platinum. The Dentists' Magazine, June, 1907, contains an article describing the Outfit and its use.

It was first publicly exhibited at the spring meeting of the Cleveland Dental Society, 1907. Not patented; manufactured by The Cleveland Dental Mfg. Co.

His appointment card viz.: "This time is reserved exclusively for you. Please give twenty-four hours notice if you cannot keep the appointment, otherwise time will be charged on your account at four dollars the hour. Payment will be required promptly upon the presentation of each monthly statement, unless other arrangement has been agreed upon before operations are commenced."

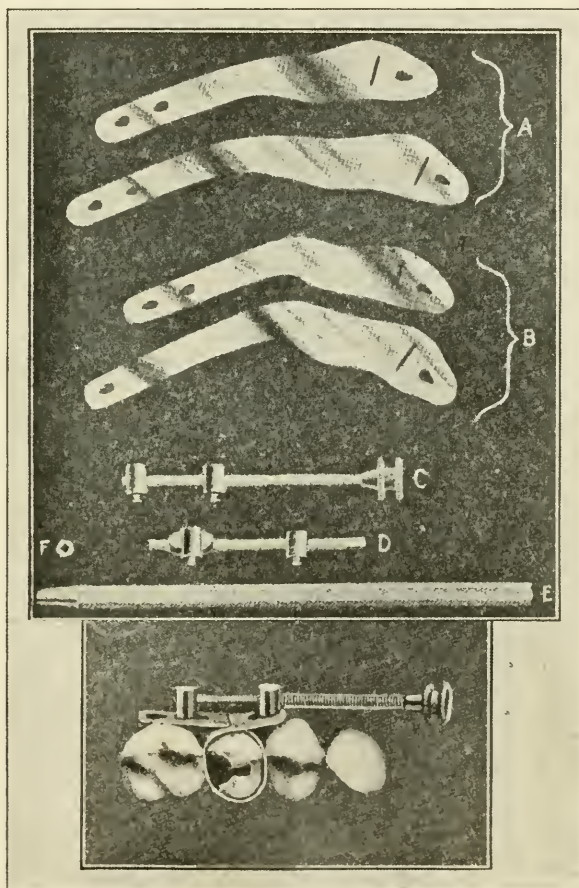
His bill head, viz.: For professional services.....
Cr. on account Balance due
 Received payment.

Statements are issued on the last day of each month for services rendered within the month. A record of all operations is kept. If there is anything not understood regarding fees or services, you will confer a favor by calling and asking for an explanation. Other first-class dentists have similar appointment cards and bill heads.

T. D. LINDSEY had an idea that a fast would benefit him, as he had some stomach and bowel trouble, but not enough to prevent his going to the office every day. He was led to do this fasting by reading of what benefits others had received from fasting during different periods, especially noteworthy were the benefits received by Upton Sinclair who described his case in the Cosmopolitan. He (T. D. L.) did not eat for eight days, but drank all the water he wanted. The first two days, he felt a gnawing and "goneness," but that passed away, and then he did not care for food; he retired, slept well, and arose at his

usual time, but during the last two days he felt weaker and was a trifle unsteady on his feet. He broke the fast by drinking a little milk every hour for the first two days, and after that ate and drank about as before the fast began. He does not think the fast benefited him much, if any.

The Lodge Band Matrix was invented by E. Ballard Lodge and patented May 11, 1907. The set consists of four bands,



THE LODGE BAND MATRIX

two traction screws and wrench. Lee Smith and Son, of Pittsburgh, Pa., were sole agents, and they supplied the dealers gen-

erally, thus a very large number of sets were sold. Owing to its peculiar form and adaptation it is the best—so far as we are aware—matrix that entirely encircles the tooth.

A represents one style of band and B the other. C shows style of screw appliance used on bicuspid bands; while D represents the one used on the molar bands. D is tightened by the wrench seen at E and F.

He also devised some special "Matrix Pluggers," for use in condensing gold or tin foil.

He was among the first to use Cataphoresis here, and the second to specialize here in the X-Ray as applied to the teeth and jaws, (1903).

He invented a glass-bowl fountain cuspidor in 1898, and perhaps was the first to apply the stereoscopic principle to dental skiagraphs; for description, see "Dental Summary", Feb., 1905.

He also illustrated some of the obscure causes of neuralgia, with skiagraphs. June 4, 1910, he devised a cervical clamp made of wire and tubing. Wire bows allow adaptation to the lingual and labial sides of the tooth; to these bows are soldered jaws which conform to the surfaces of the teeth below the cervical margin. Outside of and parallel to the lingual bow, is fastened a third bow of spring wire. To the lingual bow is hinged a lever, this being attached near the portion of the bow which clamps upon the tooth. To this lever near the place where it is hinged to the bow is a piece of metal fastened at nearly a right angle to the shaft of the lever, so that when the lever is pressed up it impinges upon the spring wire and presses upon the lingual bow, thereby tightening the clamp. Advantages: tightening and loosening by a lever makes its application quicker and easier than with screws, and it gives less pain; can be applied to all teeth except molars; the labial bow can be extended to adapt it to cavities far rootwise; it is not liable to get out of order. His bill head and statement are same as H. C. Kenyon's.

ISIDOR LYMAN'S patent, Nov. 10, 1903, consists of a chip-blower and syringe attachment for dental (treadle) engines, by means of which, either a constant or intermittent stream of water or blast of air, can be caused to play upon the tooth at the point where it is being operated upon by the dental instru-

ment. The syringe can be filled with any liquid, and a lighted lamp furnishes hot air if desired. Means are provided to regulate the quantity of liquid or air. On Aug. 16, 1904, he patented an attachment for dental engines, to be used in combination with the standard treadle and hand-piece; it comprises a bellows supported on said standard; a liquid receptacle secured to the standard; tubes seated in the stopper of said receptacle, thus converted it into a siphon, atomizer or air reservoir; a nozzle secured to the hand-piece. An antiseptic or anesthetic can be sprayed upon the teeth.

CHARLES G. MYERS, born April 29th, 1865, in Washington, Indiana. Graduated from public schools in Washington. Was bank clerk before engaging in the practice of dentistry. Graduate of Baltimore College of Dentistry and Surgery, 1888. Practiced in New Orleans two years, part of the time with Dr. J. Rollo Knapp, Galveston, Texas, three years, Cleveland, Ohio, seventeen years. Professor in crown and bridge work two years in the Dental Department of the Homœopathic Medical School in Cleveland, Ohio. Practice limited to crown and bridge and inlays.

Discovered in 1903 a process for desensitizing nerves in teeth, such process being known as High Pressure Anæsthesia.

January, 1904, invented the Myers Dental Obtunder, a high pressure syringe for forcing an obtunding fluid through the dentinal tubuli. Patent application filed April 12th, 1904. United States patent, Nov. 12th, 1907; German patent, Sept. 3rd, 1904; French patent, Nov. 11th, 1904; English patent, Nov. 10th, 1904.

In 1898 invented a Revolving Work Bench for use in a dental office. This bench combines an operating cabinet, laboratory bench, etc., in one piece of furniture.

In October, 1909, invented a Light Concentrator and Projector for dental and surgical uses, which gives a perfectly clear white field of light. Patent claims allowed but not issued.

April, 1910, invented an Automobile Light which gives a long projection of light, a clear field, and a light without the glare common to all other automobile lights. Patent claims allowed but not issued.

J. T. NEWTON was born in Hinckley, O., 1871, spent several years on a farm, attended Hiram College, O., 1889-92, graduated at the Dental Department Cleveland University Medicine and Surgery, 1895, since then has practiced here. As treasurer of Cleveland Dental Society, he introduced a perfect system of society book-keeping.

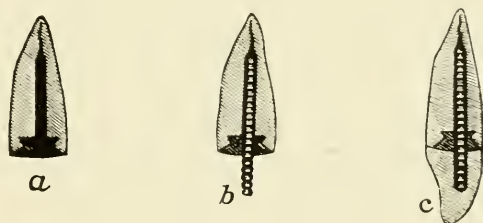
JOHN RALPH OWENS was born in Burlington, Ia., May 15, 1853; graduated from high school and business college, anticipating a business career; began to study dentistry with Drs. I. P. Wilson and O. H. Denise, of Burlington, in 1873, and entered Philadelphia Dental College in the fall of that year; was Vice-President of his class which graduated Feb., 1875. Practiced in Philadelphia between college terms, and came to Cleveland, Mar. 11, 1875, and assisted F. N. Clark for three years, then he opened an office, and is still in practice. He was one of the constituent members of the City Dental Society and its third president, also member of the State Dental Society, and president Northern Ohio Association on its fiftieth anniversary; has appeared before these societies at various times as essayist and clinician. Conservative in judgment and practice and persistent in saving dental pulps and using oxychlorid of zinc for filling root canals; his record for twenty years shows that he had few failures.

Was never an ardent advocate of inlays either gold or porcelain, believing they had a limit, but felt that the sheet anchor for saving carious teeth, was fillings of gold or amalgam.

He was the first lecturer on anesthetics at the dental department Western Reserve University, a position he occupied for several years. He devised a method of setting crowns, without band or cap, so as to preserve the end of the root and secure accuracy. Having a good strong root, the canal is enlarged for a How screw-post and the basal end countersunk. (a) The crown is ground to adaptation, then the screwpost is fitted so as to bring the crown into a proper position, then cement is used to fix the post in the canal, and the overflow cement is removed from the countersunk cavity which is then filled with amalgam (b) and while it is plastic the crown can be carefully driven to position with a mallet and piece of soft wood; now trim off the excess amalgam, and gently remove the crown;

when the amalgam has "set," then attach the crown with cement. (c).

The Ohio Dental Journal, Mar., 1900, gives in detail the method he used in capping 1675 exposed pulps, mostly with Houghton's Oxy-chlorid, and as far as he is aware only 30 died. He was appointed member of the State Board of Dental Examiners Apr., 1911, for five years.



J. R. OWEN'S CROWN

Besides practicing dentistry, P. O. and A. Parsons are successful manufacturers of Celluloid collars and cuffs, and are also interested in Parsons-Jackson Co., who manufacture toys; among them the first doll-head ever made in the U. S.—outside of rubber—which is hard and tough, and almost unbreakable. P. O. manufactures jewelry for his family.

EUGENE L. PATCHIN, born Feb. 14, 1861, began to study dentistry 1879, and practiced in Huron and Richland Co., O., 1882-85, when he came to Cleveland.

In 1899 he demonstrated his method of shaping metal plates to dies by means of rubber forms and rim strips over the die and plate, then closing on to it with a strong flask press and pounding it down with a heavy hammer. It was worked down to the die by means of a rubber crutch-tip placed upon the ball of the hammer also by the Parker swager using rubber instead of shot. Method described in the Ohio Dental Journal.

In 1890 he gave a demonstration of forms cast from natural teeth, using them for swaging "Jacket-crowns," and also showed that pulverized cuttle-fish used as an investment in soldering was a great time saver. He used fine steel wool for finishing swaged aluminum, and also a small pellet of cotton moistened

with cocaine to make contact upon for high pressure when ob-
tunding.

In 1909 he showed his method of filling teeth with gold, using quick setting cement to line the cavity, placing some of the gold in the cement before it set, thus getting a gold surface upon which he built enough more corrugated cohesive gold to fill the cavity.

C. D. PECK was born in Portage Co., O., attended public and high school and acted as foreman of his father's butter and cheese factory, and studied dentistry in the office of J. C. Merritt, of Cleveland, 1879, then graduated at Dental Department University Michigan, 1881, and since then has practiced in Sandusky, O. He is prominent in the Episcopal church and military matters.

WESTON ANDREW VALLEAU PRICE, member of American Association for the Advancement of Science, National Dental Association, Ohio State Dental Society, Northern Ohio Dental Association, Cleveland Dental Society and charter member of American Roentgen Ray Society.

Born September 6th, 1870, on a farm at Newburgh, Ontario, Canada. Preparatory education at Newburgh High School and Napanee Collegiate Institute. Graduated at the Dental Department of the University of Michigan, 1893. Took special work in the literary and medical departments of the same university. Practiced since 1894 in Cleveland.

In 1887-8 took the course in Electro Physics and Electro Therapeutics in National College Electro Therapeutics.

In 1895 established a private research laboratory for making investigations chiefly along dental lines. Special researches:

During 1895-6, investigated the underlying principles in cataphoresis and the instruments used in applying it to dentistry. Reported the result before the Ohio State Dental Society, Dec., 1896; "The Relative Efficiency of Current Controllers for Dental Cataphoresis." Illustrated, and published in their proceedings in Ohio Dental Journal, Feb., 1897.

Perfected and described a suitable means of controlling the electric current for cataphoresis by using one and a half million ohms series resistance and about ten thousand steps all in a

small compact instrument. Also a sensitive milammeter for registering the delicate current used for same.

More exhaustive research was made and presented before the American Dental Association, (now National Dental Asso-



Fig. 1

DENTAL MIL-AMMETER

ciation), July, 1897; "The Phenomena of Dental Cataphoresis" which dealt chiefly with the physical and practical conditions involved. Published in proceedings and in *Dental Cosmos*, Nov., 1907, and *Ohio Dental Journal*, Oct., Nov., Dec., 1897. Also presented before the Canadian Dental Association, Sept., 1902.

Research was made determining the chemistry and physico-chemistry of cataphoresis. In this he had some assistance from Prof. Wm. Morley; they determined the rate of migration of the alkaloid or positive ion of the cocaine hydrochlorate molecule to be about one inch per hour per 25 volts difference of electrical potential. Also demonstrated that the phenomenon was not as

supposed and taught as one of electric osmosis but was one of electrolysis. These elaborate researches were presented before the Second District Dental Society of N. Y., Jan., 1898; "The Foundation Principles of Dental Cataphoresis," and published in *Items of Interest*, May, 1898.

The technique was simplified and made exact. This was presented under title, "The Technique Necessary for Applying Cataphoresis Successfully," before Ohio State Society, June, 1902, published in *Items of Interest*, Mar., 1904, and in *Ohio Journal*; also under title "Some Hard Cases for Cataphoresis with Helpful Suggestions," and under title, "Why You Failed with Cataphoresis," before Ohio State Society, Dec., 1901, also together with other pain relieving methods under title, "Less Painless Dentistry," published in *Dentists' Magazine*, March, 1906. Migration and Vibration of the Ions of Hydrochlorate of Cocaine, in *Items of Interest*, July, 1898.

The research for the adaptation of the Roentgen Rays to dental uses was carried on during 1897-8-9, with the perfection of several new improvements, among them the following:

(A) A special tripple-coated heavy film for dental uses which was extremely sensitive to X-Rays, manufactured for the profession by the M. A. Seed Dry Plate Co.

(B) An opaque, flexible and insulating cloth to protect the patient and operator from the X-Ray burns, made in gloves, aprons, tube shields, etc. (This has saved many operators from losing their hands and lives.) This flexible opaque cloth or rubber is now made in quantities in America and Europe.

Fig. 2 which shows two hands, one with and one without the opaque glove on when exposed to the X-Rays. This was patented to secure it for the public and the formula and patent given to the public. It is made by incorporating the oxides of any metals of very high atomic weight as lead with pure gum caoutchouc and sulphur and vulcanized, either soft and flexible or hard as desired.

(C) An instrument for recording on each skiagraph negative or print from it, the exact angle or degree at which the rays approached the plate, consisting of a column of opaque metal, say a platinum post one-quarter of an inch high standing in the centre of a series of fine platinum rings all in an alu-



Fig. 2

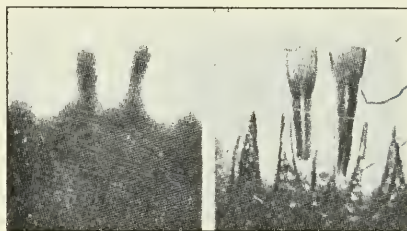
TWO HANDS—ONE WITH AND ONE WITHOUT OPAQUE GLOVE ON

minum plate. A vertical ray makes the post appear as a dot in the centre of the rings and an oblique ray by casting a shadow from the post records automatically its angle of incidence by the number of rings it crosses, which angle is read directly in degrees.

(D) A multiple high rapidity electrolytic interruptor for dental X-Ray work.

This research as to the possibility of using the newly described X or Roentgen Rays in dentistry, (previously reported as impracticable), was reported at the Ohio State Dental Society, Dec., 1899; "The Roentgen Rays with Associated Phenomena and their Application to Dentistry," published in the Ohio Dental Journal, Feb., 1900, and read before the American Roentgen Ray Society at New York at its organization meeting. "Skiagraphy in Oral and Dental Surgery." Research was made determining the best principle of X-Ray generator, of tube and interruptor for making skiagraphs of the teeth and dental lesions.

and also the best technique for making them was investigated during 1899-00 with exhaustive experiments and presented under the title, "The Science of Dental Radiography," at the International Dental Congress at Paris, France, in August, 1900, and published in their proceedings and also in the Dental Cosmos, May, 1901. (This special research took over nine hundred hours.)



RADIUM Fig. 3 X-RAYS

The making of dental skiagraphs with Radioactive Salts (since named radium) was investigated in the Spring of 1900, and reported with the last named paper in Paris with shadow-graphs made of the same teeth with X-Rays, and Radioactive Salts. Fig. 3, the only dental skiagraphs, so far as we know, published to date made with radium, and one of the earliest pictures made in this country with the radio-active chemicals.

The relative efficiency of the various X-Ray generators on the market, was studied during 1900-01, and demonstrated before the American Roentgen Ray Society, Dec., 1901.

The technique for making dental skiagraphs was improved and systematized and presented before the Cleveland Dental Society, April, 1901; "Practical Progress in Dental Skiagraphy;" published in Items of Interest.

Further research was made, perfecting and simplifying the technique, and reported before the American Roentgen Ray Society, Dec., 1903; "The Technique for Making Good Dental Skiagraphs;" published in proceedings and Items of Interest, Mar., 1904. Also Dominion Dental Journal, June, 1901, "The X-Ray in Dentristry."

The therapeutic effect of the X-Rays for treating Pyorrhea Alveolaris was studied during 1901-2-3-4, by studying and treating closely, nineteen typical cases. Eleven of these were

greatly benefited, and all were reported and some exhibited Jan., 1904, before the Cleveland Dental Society, Dental Summary, Mar., 1904. (Several are under observation and have been apparently benefited. (April, 1911.) Also reported before the American Roentgen Ray Society, Dec., 1903, and published in The Archives of Radiology, Feb., 1904. The therapeutic effect of the X-Ray for treating cancer was studied with Dr. Paul E. Woert and Dr. Price devised special instruments for this work. Root fillings were studied with the X-Rays, Items of Int., Dec., 1903.

The various uses of electricity in dentistry were systematized and simple laboratory means were perfected for demonstrating their applications and principles of application during 1900-03. This was primarily for teaching purposes in the dental department of Western Reserve University where he was Professor of Applied Electricity. This was partially presented before the Institute of Dental Pedagogics, Dec., 1902, and published in the Dental Digest, Nov., 1903; "Why and How Electricity Should Be Taught in Dental Colleges."

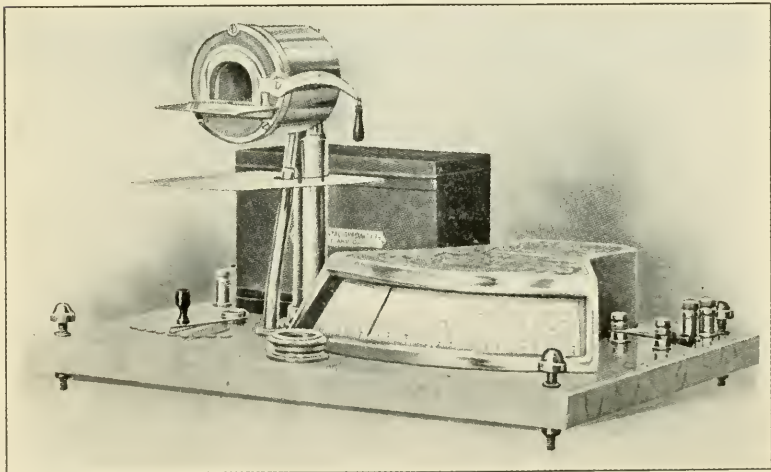


Fig. 4
PYROMETER FURNACE

The study of porcelains and the laws governing their baking was carried on during 1901-2-3-4, and resulted in the development and perfection of the pyrometer dental furnace which was

given to the profession and not patented, but reported in detail in the Dental Brief, March, 1904. Fig. 4. This included as first presented, a detachable couple or couple attachment, to be inserted into the door of any furnace, Fig. 5. The original dental pyrometer furnace instrument is in regular use now by the inventor. The complete pyrometer furnace and the detachable couple were widely copied. These improvements were also presented under the title, "Important Improvements in Dental Furnaces and the Necessity for Them," at the Dental Department of the University of Michigan. Additional research was presented under the title, "The Advantages of the Pyrometer for Obtaining Exact Results in Baking Porcelain," published in Dental Summary, Sept., 1905.



Fig. 5
PYROMETER AND DETACHABLE COUPLER FOR ANY FURNACE

On the crushing strength of various porcelains with various baking temperatures for the same. Also the relation of the color to the strength for a given porcelain. This was reported under the title, "The Relation of the Color and Strength of Porcelain to the Actual Baking Temperature," before the Odontological Society of West. Pennsylvania. Dent. Sum., Dec., 1904.

On the physical and physico-chemical changes that occur in the process of fusing porcelain showing the relation of time to temperature, etc., were studied during 1902-04, and reported before the Illinois State Dental Society and published in the Dental Digest: "The Solution of the Color Problem in the Fusing of Porcelains."

A method for recording the indicated temperatures was perfected by means of a spark from a small X-Ray coil or jump spark coil which was made to jump from the needle of the pyrometer through a traveling paper chart. This pyrometer and recorder with improvements, have come into large use in the manufacturing arts such as glass and pottery factories, iron and steel manufacturing, steel tempering, cold storage, etc., etc. These are manufactured by the A. M. Price Electric Co., of Cleveland, Ohio. (The inventor has no connection with this company which is owned and managed by his brother).

A study of the physical properties of gold and investment compounds, and the development of a method of gold inlay procedure using impressions, and the production of a new hard model material, was carried on during 1907-08 and reported at the Seventh District Dental Society, N. Y., March, 1908, and published in Items of Interest May, 1908: "The Laws Determining Casting and Fusing Results, Their Control, and a New and Rational Technique for Dental Restorations."

This new hard model material, called artificial stone has qualities of hardness and great strength but without contraction on setting, also withstanding high temperatures without injury. In it gold may be fused or cast and polished. The development of this stone model material and the impression wax alone required about fourteen hundred hours of laboratory work, largely that of an expert ceramic chemist. This was not patented, but given to the profession.

The formulas for making the artificial stone and impression wax are: Stone—selected kaolin, 3 parts by weight; calcium hydrate, 1 part by weight; aluminum oxid, 1 part by weight, fused at 2750° F. and powdered and mixed with equal parts of selected fine potshell. The liquid is phosphoric acid; or by synthetic method; pure silica, 20 parts by weight; calcium hydrate,

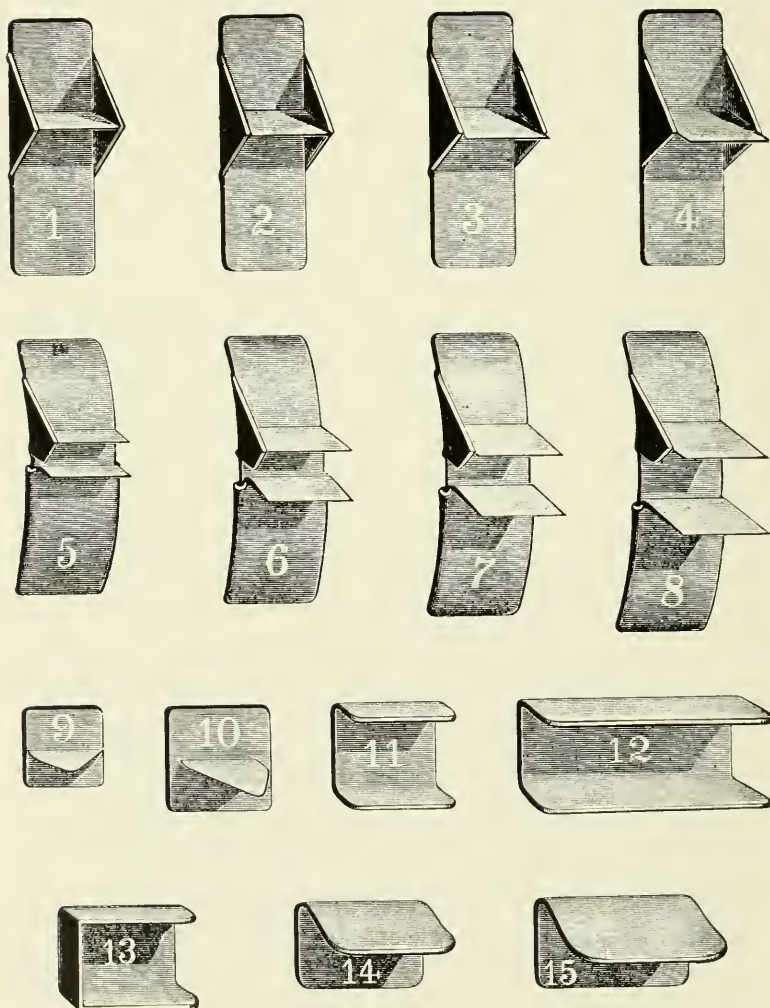


Fig. 6
IMPRESSION TRAYS

19 parts by weight; aluminum oxid, 42 parts by weight, fused and mixed as above.

Impression Wax—white gum damar, 110 parts; tamarack (hackmatack), 10 parts; beeswax (pure), 15 parts; paraffin, 10 parts; stearic acid, 2 parts; for further directions, see *Items of Interest*, Sept., 1910, and *Dental Cosmos*, Mar., 1911.

This system of casting and fusing gold directly into a hard model, was demonstrated before the Toronto, Canada, Dental Society, Oct., 1908; Odontological Society, Pittsburg, Pa., 1909; Southern California Dental Association, California State Dental Association, Oregon State Dental Association, Washington State Dental Association, June and July, 1909; Connecticut State Dental Association, May, 1910, under title, "Some Advantages of the Stone Model Method in Making Gold and Porcelain Restorations," published in *Dental Cosmos*, Sept., 1910, and proceedings of Massachusetts State Dental Association, June, 1910. Also paper in *Dental Summary*, Feb., 1909; same subject.

An improved technique for cavity preparation for gold inlays and a system of trays and a micrometer articulator were studied and developed, (Fig. 6 and 7) during 1908-9, and presented before the Second District Dental Society, N. Y., Jan., 1910, published in *Items of Interest*, Sept., 1910; "Casting to Models, Its Advantages and Technique."

The Laws underlying and controlling the behavior of gold in fusing and casting and also of the noble metals, were carefully studied during 1909-10, and also the physical properties of the waxes used for impressions and patterns, and of the various investing compounds. The fact was determined by exhaustive experiments, that gold occupies one-ninth (11.52%) (linear expansion is one-third the volume expansion) more space

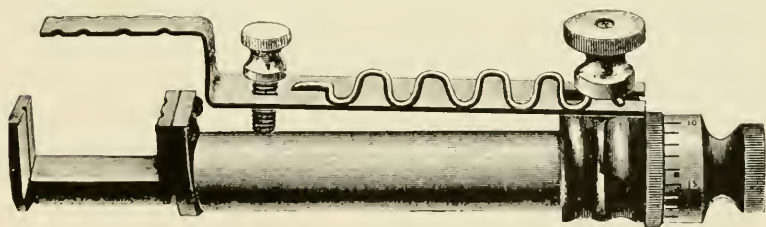


Fig. 7
MICROMETER ARTICULATOR

when molten than when at normal temperature and that it changed nearly half of this total change 4.9% in passing from the liquid to the solid state practically without change of temperature. The expansion and contraction of gold at all temperatures to melting point was determined, also the effect of alloying and the effect of various pressures on the crystallizing and cooling gold. Also the exact expansion co-efficient of all the stock inlay waxes at various temperatures and their elasticity and the precise errors introduced by each of the various steps in the various casting processes. Also the expansion and contraction of investments on being heated and the effect of casting pressure on them. This research was presented before the National Dental Association, July, 1910, and published in their proceedings and in the Dental Cosmos, Mar., 1911; "The Laws Determining the Behavior of Gold in Fusing and Casting." The part of this research which determined the physical properties of gold and of the waxes, took over eleven hundred hours of time, largely by hired expert assistants, one of whom was Prof. D. C. Miller, and cost over \$1,000.00.

He carried on continuously from 1895 to 1911 inclusive, studies and experiments for perfecting a technique and procedure for correcting deformities of the face and occlusion in adults by mechanical means without moving the roots of the teeth. Reported in part before the Ohio State Dental Society, Dec., 1906; "The Correction of Occlusion, Articulation and Facial Expression by Lengthening the Bite by a System of Crowns, Bridges and Inlays," published in Dental Summary, May, 1909. Also improved and presented before the New York State Dental Assoc., May 5th, 1911; "The Correction of Facial Deformities and Malocclusion in Adults." Cosmos, Aug., 1911.

During 1904 to 1911 inclusive, he studied the automatic recording of temperature, pulse and respiration, (unpublished April, 1911).

In 1911 he studied the effect produced on obstinate cases of pyorrhea alveolaris, by raising the opsonic index, (unpublished April, 1911).

The following instruments have been devised and given to the profession by him:

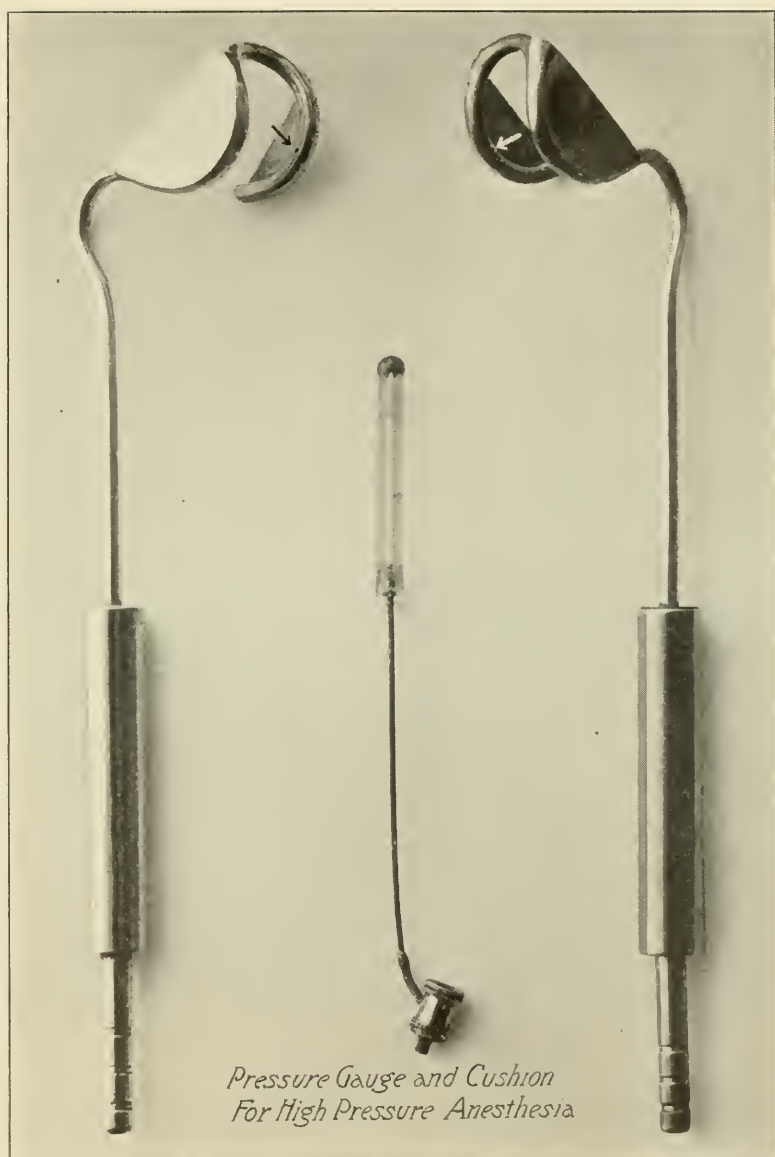


Fig. 8

The two outside Instruments are Saliva Ejectors.
The one in the center is a Pressure Gauge.

A combination saliva ejector and tongue and cheek depressor and protector in pairs, for the lower arch. Dispenses with the rubber for most lower operations. Fig. 8, the two outer instruments.

An electric bur sharpener using the direct current and an acid bath with the burs on the negative pole, (electroplating reversed).

A combined pressure gauge and pressure cushion for high pressure anesthesia preventing the pain caused by pressing cocaine into a pulp. Fig. 8, the center instrument. It can be attached behind the needle on any high pressure syringe.

A centrifugal casting machine in which the gold is melted in a crucible in a resistance muffle and its temperature shown by a pyrometer. The centrifugal force releases the head which automatically turns from a vertical to a horizontal position thereby allowing the molten gold to enter the mold at high pressure. Fig. 9.

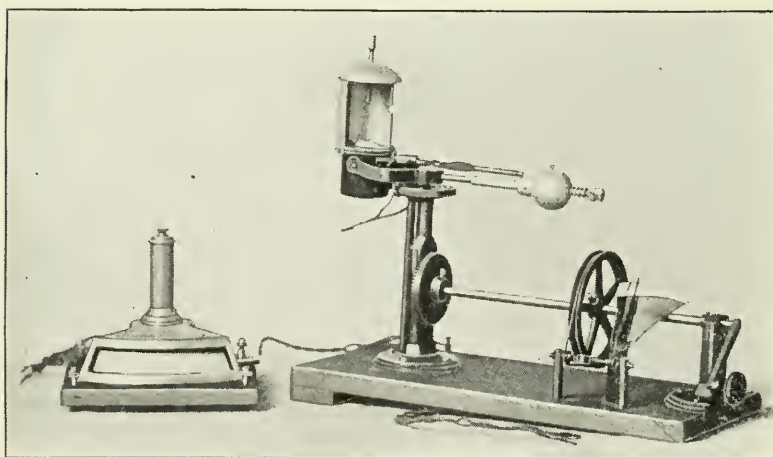


Fig. 9
CENTRIFUGAL CASTING MACHINE

Copies of the reports of these researches have been bound and placed in the Dental Library Section of the Cleveland Public Library and in the State Dental Library at Columbus, under title "Reports of Dental Researches of Weston A. Price, 1895 to 1911.

R. R. PEEBLES was born in N. Y., Aug. 21, 1831, and came here Sept. 16, 1836; when his school days were finished, his occupations were varied, including the study of medicine and dentistry. May 30, 1861, he enlisted in Co. B, 7th O. V. I., and was discharged Nov. 28, on account of being wounded. Later went into the Quartermaster's department as A. Q. M. agent and remained until the close of the war at Nashville, Tenn., then returned here and entered J. C. Stephan's dental office, Sept. 28, 1865, and remained one year, but during this time he attended the Medical College on the corner of St. Clair and Erie St., where he graduated in 1867, and later he took a full course in the Chicago Post-Graduate School of Prosthetic Dentistry.

In 1867 he purchased the dental practice of his preceptor, corner Pearl and Detroit St., where he practiced for thirty-six years, retiring in 1903 on account of a broken leg.

E. D. PHILLIPS, graduated Dental Department Western Reserve University, 1905; demonstrator Operative Dentistry in this department 1906.

E. W. POOLE and J. H. HEFFELFINGER, in Jan., 1909, obtained a patent on a locking device for porcelain facings, which consists of a chamber with an overlapping edge to receive the bent pins of any bridge-tooth; said tooth is easily removed while in process of constructing a bridge, and easily replaced if broken. To keep the pins or hooks immovable, they are set in cement, which also makes them sanitary. This device gives a wide range to the dentist by reason of the great number of teeth to select from, and a tooth of the above kind is the strongest of any removable tooth. There are no flaws caused by soldering, and no channels or indentations in the facings, and several have been used in the mouth for six years, and none have broken.

M. C. RAMALEY devised an apparatus for the administration of Ethel-chlorid as an anesthetic; a pair of burnishers for use on gold fillings; a set of band-fitters and some gold pluggers.

MARTHA ROBINSON, daughter of J. E. Robinson, was born in this city Sept. 12, 1866. Graduated from Dental Department Michigan University 1888; practiced here in her father's office

until 1892, when she married D. E. Ewald of this city; practiced in Brooklyn, N. Y., since 1896; secretary Cleveland City Dental Society 1889; Vice-President Ohio State Dental Society 1890; member Second District Dental Society, N. Y. She well represents the third generation of dentists in the Robinson family, and the "brethren" here always speak kindly of her.

Methods of using Steele's Facings on Bicuspids and Molars.

Clinic prepared especially for "Items of Interest," by H. B. Rosenwasser.

Prepare the root as for an ordinary shell crown, trimming buccal portion at a right angle to make room for Steel facing. Make a shell crown band, filing the buccal side to within one-eighth inch of gingival end, a sixteenth of which should extend below the gum similar to the Richmond band; the operator must use his judgment as to how much gold he extends above the gum line. All filing must be at right angles, and may be continued until the mesial and distal flaps are hidden from view by the adjoining teeth. Solder a piece of thin gold as a floor to the buccally—extended portion. With the floor as a base place the Steele backing against the filed mesial and distal flaps, and solder backing to band, allowing backing to extend above the band until crown is completed. Swage solid gold cusp, fit it against the backing and higher portions of the band, and solder cusp to band. Place crown in mouth and grind facing to correct occlusion. Trim backing to facing. If the occlusal surface is not high enough unite it to the backing with solder. This makes a strong, durable, esthetic crown, with the advantage of a removable Steele facing. For illustrations see Items of Interest, Oct., 1906.

H. B. ROSENWASSER received an appointment as dentist to the Cleveland Jewish Orphan Asylum, April 30, 1904. This institution has on an average five hundred children from four to fifteen years of age. He is in attendance one day per week, and has a room with the necessary dental appliances. In emergency cases the children are sent to his office in the city. The character of the work does not differ from regular office practice; gold, amalgam and cement fillings; gold and aeolite inlays; gold and porcelain crowns; treatments and extractions.

Orthodontia was attempted but abandoned, as the children would often remove the appliances.

In 1908 W. H. ROWAND produced cast gold inlays, etc., with an apparatus (of his own construction) now known as the "Bucket Method," which consisted of a small metal bucket (flask) in which the investment containing the disappearing model is placed; the gold being melted in a concavity in the top of the investment—with a blow-pipe—the bucket which is attached to a handle, is quickly whirled in the air and the gold finds its way through a sprue hole into the mold. In regard to the above he says: "In Dec., 1908, while experimenting with centrifugal casting machines attached to a dental motor, I conceived the idea of the hand casting-machine. In swinging the bucket around by hand—like a sling-shot—the speed can be controlled and after trying it practically, it was found to be all that could be desired for all kinds of casting applicable to operative and prosthetic dentistry."

R. E. SADLER invented and patented a combined impression tray and cheek distender, No. 850,328.

JULIUS B. SAPP was granted a patent (793,099) for a new and useful improvement in syringes for seventeen years from June 27, 1905. This invention is an obtunding-syringe particularly suitable for dental work. The principal characteristic is the use of a screw plunger instead of the usual reciprocating piston. This is known as a high-pressure syringe, and is successfully used for injecting anesthetic solutions into the tooth substance—through a small pit drilled into the dentin—so that in one or two minutes the tooth can be excavated for filling, or it can be ground, or the pulp can be removed painlessly.

The accompanying illustration represents a very simple and practical invention of O. J. SAYERS for making castings by air pressure. The device is small, but very efficient in operation, and is particularly designed to control the air automatically. For dental work it has a wide range of use. The Cire-Perdue, or Waste-Wax process, is followed, wherein a wax model of the object to be cast is supported centrally in a flask by means of a needle or wire of sufficient diameter to form an ingate or sprue when withdrawn from the investing-compound or mold after its completion. The finished mold is placed in the air-compressor, the metal placed in the mouth of the mold, and then all the operator is required to do is to melt the metal by use of the blow-pipe, and at the critical moment simply press down upon a finger bolt; the balance of the operation is automatic. This automatic feature is broadly covered by letters patent bearing No. 937,964 issued to Dr. Sayers, Oct. 26, 1909. Fig. 1.

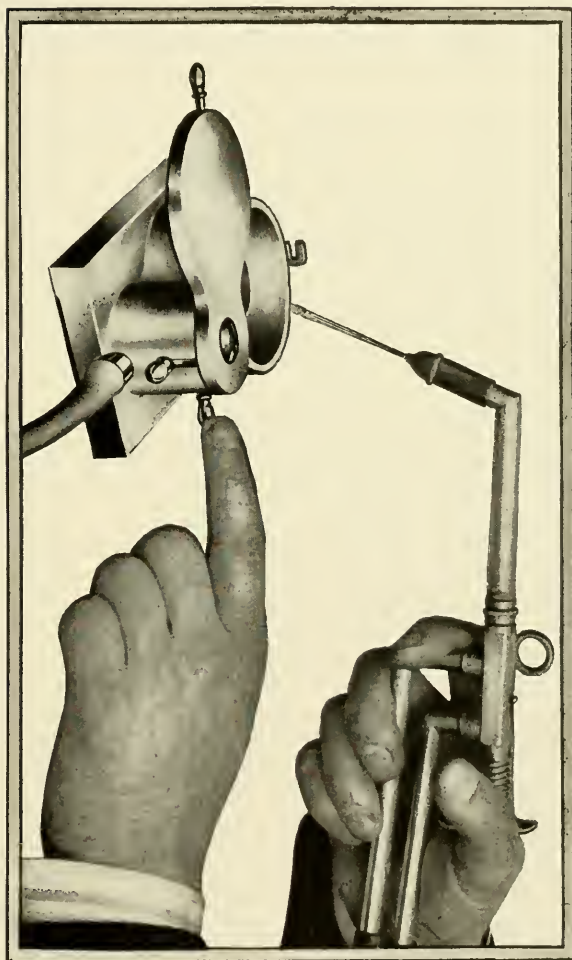


FIG. 1
O. J. SAYER'S AUTOMATIC PRESS OR COMPRESSOR FOR CASTING

He also invented a miniature Drill Press in which the hand-piece of a dental engine may be utilized to operate a drill or other tool in drilling, reaming and tapping operations, and particularly in removable bridge-work, etc. The device is also useful in aligning different platework attachments, such as the Morgan, Condit, and Ball and Socket attachments. It is both a Drill Press and Paralleler combined, but may also be advantageously employed for many other purposes in the daily work of every mechanically inclined dentist. In detail, the device comprises a hollow spindle adapted to firmly hold the hand-piece. A face-plate which holds the work has a universal joint which permits the work to be adjusted in fixed position at any desired angle in respect to the tool in the hand-piece. The arm for the face-plate may be raised or lowered to give a wide range of operations. Only a few advantages of this device can be set forth for lack of space. Fig. 2.

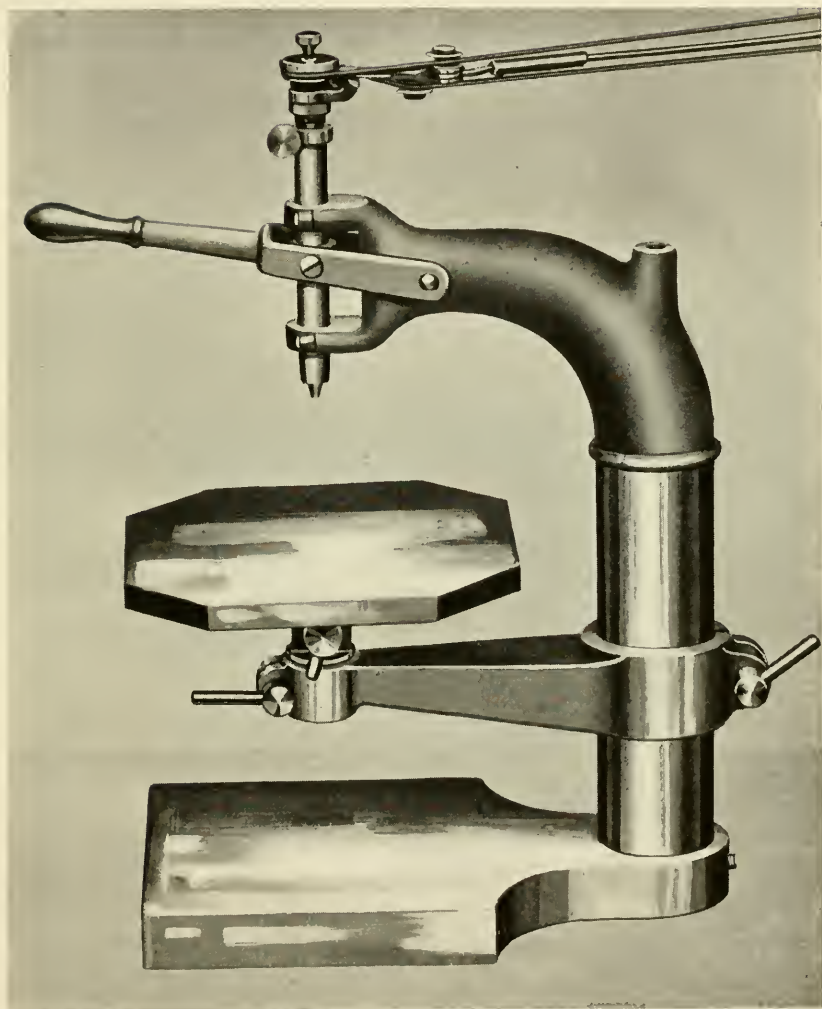
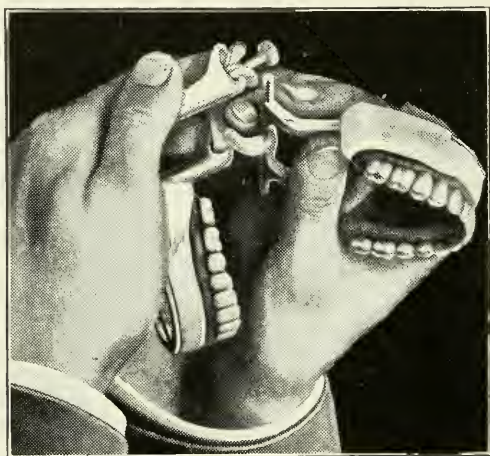


Fig. 2

O. J. SAYER'S INVENTION—DRILL PRESS

W. A. SIDDALL, about 1898, introduced the use of a block of ear-spring rubber for swaging metal backings to artificial teeth; after holes were punched in the backing, the pins were slipped through and the tooth was placed face downward on a solid foundation, then the rubber was placed on the pins and struck with a heavy hammer—result—the pins penetrated the rubber and the backing was neatly swaged to the tooth.

F. W. STEPHAN was born here Sept. 14, 1873, attended the public, high and manual training school; studied dentistry with his father, and assisted W. T. Jackman about one year; graduated from Chicago Col. Dent. Sur. 1896; associated here in practice with his brother J. F. Stephan until Sept., 1897, when



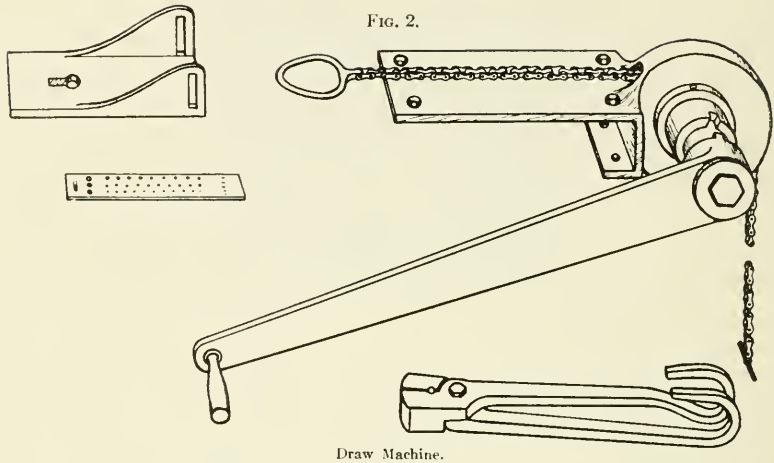
F. W. STEPHAN ARTICULATOR

he was appointed Demonstrator Operative Dentistry by his alma mater. In 1898 began practice in Chicago, where he still remains. Member Illinois State Dental Society, Chicago Dental Society, Northern Ohio Dental Association, former member Cleveland Dental Society. Devised in 1895 a parallel forcep for extracting, also a thimble with knife attachment to cut thread. Aug. 7, 1906 patented an articulator.



F. W. STEPHAN ARTICULATOR

JOHN F. STEPHAN was born here July 12, 1872, attended the public, high and manual training school, studied dentistry with his father, and J. W. Dawson, who specialized in prosthesis; graduated Chicago Col. Dent. Sur., 1892, and has practiced here since then. Lecturer and Prof. Crown and Bridge-work, Dent. Dept. Homeopathic Hospital Col. 1892; Prof. Operative Technics and Lecturer Dental Anatomy, Dent. Dept. W. R. U. for several years beginning 1893. Ex-Pres. Cleveland Dental Society, Ohio State Dental Society, Northern Ohio Dental Association; member National Dental Association, National Institute Dental Pedagogies, N. Y. Institute Stomatology, Cleveland Academy of Medicine, Cleveland Medical Library Association, N. Y. Odontographic Society. He joined the Northern Ohio Dental Association 1892 and was Pres. 1902, and has held the various other offices; read many papers, discussed others; given several clinics and made valuable suggestions; joined the Cleveland Dental Society 1892 and was Pres. 1899, and has held various offices down the line, besides presenting papers and giving clinics. In 1908 he was chairman of the Com. which furnished the design which was adopted as the official button of the Northern Ohio Dental Association. In 1893 he made modifications of the Case enamel cleavers, and presented a special wooden form for accurately fitting bands for crowns. He designed an adjustable pyrometer attachment for electric furnaces, which has become one of the most popular. He devised a Draw-bench which is indispensable for all extensive drawing of wire and tubing: "It consists of a draw-plate-holder at one end and at the other a finely constructed steel ratchet windlass for supporting the



DR. J. F. STEPHAN'S DRAW MACHINE

attachment of a bicycle chain to which is attached the draw-tongs. The wire to be drawn should be tapered at one end to pass through the required reducing hole of the draw-plate to be grasped by the draw-tongs; keep the plate oiled." (C. S. Case, Dental Orthopedia). In 1910 devised a double band crown. Introduced nitrous oxid and oxygen, for use in major surgery, in the hospitals here. He is a fine mechanic and thorough practitioner.

HAMILTON F. STRONG'S method of using tin foil and non-thermoline (varnish) in combination with amalgam fillings which was patented Jan. 29, 1907, consists in lining a cavity in a live tooth with one or more layers of tin foil keeping it away from the margins; then apply one or more layers of non-thermoline to the foil and walls of the cavity, keeping it away from the margins, and when dry, fill with amalgam in the usual way. Instead of completely filling the cavity with amalgam as described, only fill it partly full; remove, if any, the free mercury from the surface and prepare the cavity in the usual way to retain the gold, then apply one or more coatings of non-thermoline to the amalgam, and when dry insert the gold filling in the usual way.

His prophylactic method of setting gold shell crowns is viz.: After the live tooth has been prepared, apply non-thermoline, then line the inside of the crown with tin foil and make one or two more applications of non-thermoline to the tin lining, and when it is dry, complete the operation as usual.

His prophylactic method of setting gold inlays is viz.: When the pulp is in a normal condition and the cavity prepared, line the inside with tin foil and then apply non-thermoline to the foil and when it is dry, the cavity is in readiness for a wax model and to receive its duplicate—the cast inlay.

In all these operations, tin foil and non-thermoline (owing to their extreme low conducting property and congeniality) were chosen to protect the live pulp from irritation due to the conductivity of the other materials and from the destructive influence of cement.

MRS. FLORENCE M. TAYLOR graduated from Ohio College Dental Surgery, practiced here a few years, married again and went to Washington; her first husband was a dentist.

CHAS. K. TETER, Aug. 5, 1902, patented an apparatus for administering anesthetics, and the object of the same is to construct a stand for such device which will support two gas-cylinders, one of oxygen—and one of nitrous oxid—valves regulate the flow of gas out of the cylinders into the mixing-bag, which is provided with means connecting it to a face-piece.

June 23, 1903, he patented a Nasal Inhaler, which is a combination of a flexible cup adapted to fit over the nose alone of a patient; a nipple on one side of the cup to provide an attachment for a gas tube, and a valve to permit exhalation. Patented England, France, Germany, Belgium, Canada.

April 7, 1908, he patented an apparatus for administering anesthetics, the important features of which, are its adaptability for the administration of various kinds of anesthetics: the employment of a mixing chamber; the muffling of the noise of the expanded nitrous oxid; the provision for warming the same prior to administration; means for mingling the oxygen with the anesthetic in definite proportions; the arrangement of parts whereby ether or chloroform may be administered through the same apparatus by which the nitrous oxid and oxygen are sup-

plied; the provision of a complete apparatus for the administration of anesthetics scientifically. Patented Canada, England, France, Germany, Belgium.

He came here in 1904, and his practice is limited to minor oral operations, extracting teeth, and administering nitrous oxid and oxygen for surgical purposes.

In 1906 he invented a set of six elevators with large octagon metal handles.

In 1908 he was appointed chief anesthetizer at St. Luke's hospital, where he installed a plant for the manufacture of nitrous oxid.

In 1910 he was appointed to teach the use of, and administer nitrous oxid and oxygen at Lakeside Hospital, where a plant was installed same as at St. Luke's.

In 1910 invented a pump for compressing nitrous oxid and oxygen: this pump has double action with opposed cylinders and air-tight crank-case with bearings running in oil, and it does not leak around the pistons.

JOHN W. VAN DOORN, graduated from New York College of Dentistry 1890; Professor Materia Medica and Therapeutics, Western Reserve University Dental Department 1892-1907, when he resigned. Author of *The Relation of Dental Lesions to Insomnia and Nerve Strain*, Cosmos, June, 1909, in which he cites his experience in treating one hundred cases in which the teeth were the cause of nervous disorders, and in most cases the treatment of the teeth was productive of a return to normal general health. In the majority of them insomnia, melancholia and chronic neuralgia were the systemic manifestations. Besides these, there were cases of neurasthenia, partial paralysis, epilepsy, insanity and eye affections. For further information see *Insomnia and Nerve Strain* by H. S. Upson, M. D.

WILL H. WHITSLAR was born June 14, 1862, in Youngstown, O., where his father F. S. Whitslar practiced dentistry over fifty years. Will attended the public schools and Rayen High School, then entered a local pharmacy for three years. His father's practice being large and promising for a young man, he gave up pharmacy and began the study of dentistry Jan. 1, 1883, and in the fall he entered the Dental Department Uni-

versity of Michigan, and graduated Mar. 24, 1885. By arduous application to study he entered the senior class at Rush Medical College and graduated 1886, and has practiced dentistry ever since. In the fall of 1891 he came to Cleveland and was made Dean—also Professor—in Dental Department Homœopathic Medical College; at the close of the year he resigned to become one of the organizers of Dental Department Western Reserve University in which he was Secretary of the Faculty and Professor Dental Anatomy and Pathology; he resigned after twelve years service. He has contributed numerous papers and lectures to dental and medical societies, and been President Ohio State, Northern Ohio, and Cleveland, Dental Society. He was assistant editor of the Dental Register for several years, under J. Taft, and was one of the early special contributors to the Dental Review. His earliest writings were upon Dental Anatomy and Embryology, and he gave a course of lectures on this subject at the University of Michigan; his subsequent work has been mostly devoted to pathology and therapeutics; his discovery of the value of sulpho-carbolate of zinc in the treatment of pyorrhea, is being well received; he has held the highest office in the Delta Sigma Delta fraternity.

As an improvement in the Morrison screw-plate for extracting roots, he suggested doing away with the ring-shaped end of the shaft, and in its place have a short handle at right angles with the shaft—this was adopted.

He has written extensive articles and given several illustrated lectures, on "The Human Hand"—a study of the hands of dentists.

GEORGE H. WILSON was born in Painesville, O., Mar. 3, 1855; at the proper time attended the high school. In the fall of 1873 he began the study of dentistry with his father (D C. Wilson) and W. H. Fowler. In the fall of 1876 he entered the Dental Department of the University of Michigan, from which he was graduated in 1878. He practiced in Painesville until 1891, when he accepted the chair of clinical prosthetic dentistry in the Cleveland (Ohio) University of Medicine and Surgery, filling that position for one academic year. In Jan., 1892, he entered upon the private practice of dentistry in this city; in

the spring of that year he accepted the chair of prosthetic dentistry and metallurgy in the dental department of Western Reserve University, which he held until June, 1904, when he resigned and devoted his entire time to private practice. Since 1896 he has specialized entirely in the department of prosthetic dentistry. In 1870 joined Northern Ohio Dental Association, in 1887 elected president. In 1880 joined American (now National) Dental Association and Ohio State Dental Society, the latter of which he was president in 1897; honorary member of several local and state dental societies, and was one of the organizers and the first president of the Cleveland Dental Library Association. In 1895 a member of supreme chapter Delta Sigma Delta; one of the editors of *The Dentists' Magazine* for three years; one of the authors of the *American Text-book of Prosthetic Dentistry*, and has recently completed a practical and well illustrated text-book on the same subject.

Has written many articles on dentistry and given numerous clinics and is completely devoted to his profession.

Fee bill (given in dollars), Consultation 2 to 10; Retainer, one-fifth of estimate; Vulcanite, either upper or lower 25 to 50; Vulcanite both upper and lower 50 to 200; Aluminum, either upper or lower 50 to 100; Aluminum, both upper and lower 100 to 500; Gold work, 50 to 750; Continuous Gum 200 to 1000.

In Jan., 1906, G. F. WOODBURY devised some gold-tipped instruments for burnishing matrices for inlays. The instruments are made from excavator handles with small shanks which can be bent to any desirable angle, with a piece of pure gold soldered onto the end and shaped into inverted cones, buds, barrels, balls, etc. Melt a nugget of pure gold large enough to allow for shape of instrument planned, flux the steel and when the gold is molten carefully insert the end of it, and let it cool. Do not allow the steel to penetrate too deeply into the gold so that when the end is shaped to form the steel will show through and defeat the advantage of the gold end.

S. M. WEAVER was graduated from the Dental Department of Western Reserve University, Cleveland, in 1899, while a junior he devised a set of enamel cleavers, and in 1898 devised a set of proximal trimmers.

June, 1905, patented an obtunder, which so far is the only automatic high pressure instrument devised for obtunding sensitive dentin and the painless removal of living pulps, by injecting some anesthetic.

Oct., 1907, patented the Weaver Pyrometer, an accurate device for ascertaining the exact fusing point of porcelain: by its use it is possible to obtain the exact shades desired without burning out the color. A special feature, is an arrangement whereby the degree of heat in the furnace, where the inlay rests, is recorded on the milli-voltmeter by means of two thermocouples ending close to the porcelain and always remaining in a fixed relationship.

In 1910 he sold all "rights" in the Obtunder and Pyrometer to The Patent Mfg. Co. of this city.

D. H. ZIEGLER, graduated from Dental Department Western Reserve University 1899; Professor Clinical Operative Dentistry 1903-5, author of *Nirvanin as a Local Anesthetic*, Cosmos, Oct., 1901, in which he cites experiments when using it hypodermically for minor dental operations, and concludes that it is safe practice, and that the anesthesia is as profound and more prolonged than that produced by cocaine; the drug is ten to fifteen times less poisonous than cocaine, and patients have no vertigo, and wounds heal rapidly. His experiments to show its physiological action when applied directly to a frog's heart, show that the immediate effect was a slight, short stimulation, with further phenomena typical of paralysis of the cardiac muscle, but it is not a dangerous drug in the amount used in minor operations.

In Memoriam

NATHAN HARDY AMBLER was born in Huntington, Vt., 1823, and began to study dentistry in 1841 and went overland to California, during the "gold craze," in 1849 where he practiced until he came to Cleveland 1852; he remained in practice until 1868, when having made a fortune in real estate here, he retired and resided at "Rock Rest," on Fairmount St., until his death in 1888; his remains were interred in Lake View Cemetery. He first purchased three acres on the corner of Euclid and Bolton and built a house and in a few years sold it and purchased the adjoining twelve acres, on which he built a large brick house which was "razed" when Billings Ave. was laid out. He was the first one to build a residence (now standing) on the ridge of land (then outside the city limits) now known as "The Heights."

In 1855 he was associated with B. T. Spelman, who came here from Ravenna, O.

The subject of our sketch was a man of great personal magnetism and physical power and the writer has seen him (in those far away days) make fees amounting to one hundred dollars in one day operating at the chair.

He was one of several Amblers and immediate relatives who have practiced dentistry.

D. C. Ambler, M. D., practiced in N. Y. City for more than thirty years, beginning about 1830.

J. G. Ambler, M. D., succeeded the above and practiced more than thirty-five years, and he in turn was succeeded by John G. Ambler who is still in practice.

H. L. Ambler came to Cleveland 1864 and began the study of dentistry.

The noted porcelain and continuous-gum manipulator, Ambler Tees, practiced for many years in Philadelphia, and he

has been succeeded by Ambler Tees, Jr., who is still in practice. S. A. Tees is also practicing in the same city.

Oscar J. Allen (cousin of N. H. Ambler), was assistant surgeon in the navy and afterwards studied dentistry and has been practicing in N. Y. City for thirty-five years.

Archibald Eglin (distant relative) is now practicing in Philadelphia, where he is associated with F. A. Peso, of crown and bridge fame.

WILLIAM H. ATKINSON was born in Newton, Pa., Jan. 23, 1815; studied medicine in 1840; graduated as M. D., 1847, from Willoughby University (in Ohio) where he became interested in dentistry, a profession which he studied. For a time he was located in Norwalk, O., where he became interested in dentistry; moved to Cleveland in 1853 and associated himself with F. S. Slosson, a dentist; soon after he opened an office for himself, and C. R. Butler became his first student, and subsequently his partner. He was a student of the natural sciences and microscopy; his researches in the field of dental therapeutics, pathology and histology soon gave him prominence in the dental profession; he was an "all around" dentist, and probably the first one here to place his services on a time basis and claim a high standard of fees. While here he made a success of filling root-canals with tin foil. He received the honorary D. D. S. from the Ohio College Dental Surgery, Cincinnati, 1859.

Atkinson and Butler were among the first here to use vulcanite.

He was among the early dental clinicians, and at the Indiana State Society 1859, he and P. G. C. Hunt had charge of the clinics.

He was the second President of the American Dental Association (now the National) 1860.

In 1861 he moved to N. Y. City where he made a great success; his home was the rallying point for the profession from all over the world; he opened the door of his operatory and laboratory, and all were welcome to his demonstrations; his income was large, and his fees from the wealthy (for those days) were fabulous, but he did much for charity and hospitality, and spent largely of his time going about the country to attend dental societies.

He assisted in organizing the N. Y. College of Dentistry, and through his influence the N. Y. School of Microscopy under the management of C. Heintzman was organized. He was "the grand old man," for all he was eccentric, aggressive, progressive, magnetic, and he said that his brilliant ideas and flights of oratory were inspired by the angels, for he was a spiritualist and a follower of Swedenborg.

In S. S. White's catalog 1867 appears the following: Dr. Wm. H. Atkinson's Points. The set heretofore offered to the profession contained twenty-four points, but Dr. Atkinson has added thirty-six new forms, including a full set of burnishers. The serrations are well defined and Points nicely finished. Price \$20.00. He wrote a poem dedicated to "My Mallet." These instruments are designed to be used with the hand mallet, and are adapted for that purpose, and approved by the inventor.

The set of twenty-four referred to above, was manufactured about 1865, and his set of smooth pointed pluggers about 1870. The latter set was peculiar, from the fact that there was a large amount of steel left in the neck of the plugger: this bulging neck (shank) he said would prevent vibration when the end of the shaft was struck with the mallet. Cohesive gold foil was manufactured and sold by S. S. White under the name: Wm. H. Atkinson's Gold Foil.

In "Items of Interest," Nov., 1891, is a poem by W. G. A. Bonwill, dedicated to W. H. Atkinson on his seventy-sixth birthday Jan. 23, 1891, at 1:06 A. M. He passed to his spirit friends from N. Y. City April 2, 1891, and was interred in Woodland cemetery by his professional brethren.

J. T. BARCLAY was born in Beaver, Pa., Nov. 8, 1837, attended the public school and worked on his father's farm, then studied dentistry with his brother, G. J. Barclay, and was licensed 1871 and practiced several years in Columbiana, O., where he was one of the founders of the local Presbyterian Church, and a charter member of I. O. O. F.; while residing here W. H. Atkinson, a former preceptor, visited him, and among other things had great sport shooting duck on the wing.

He came to Cleveland about 1881, where he practiced until his decease Feb. 16, 1911. His remains were interred beside those of his wife, Hannah Hisey Barclay in Columbiana, O. He

is survived by three daughters, Mrs. L. A. Sackett, Misses Ella and Ada, and a granddaughter Miss M. H. Sackett.

NELSON M. BECKWITH was born in Ashland, O., about 1841; in 1860 went to Hillsdale College, Hillsdale, Mich., where he remained a few years, then he came to Cleveland and entered the office of N. H. Ambler as a dental student and about 1869 he went to N. Y. City where he assisted Dr. Waite, but later opened an office for himself and continued to practice until his decease several years later. He was of a most genial and happy disposition and made many friends wherever he went.

A. D. Bigelow came here in 1848 and remained five years and had an office over the Merchants' Bank, corner of Superior and Bank Sts. He was a prominent Mason, and a lodge which was named for him on the west side of the Cuyahoga river, is still in existence.

In the Masonic Temple, corner of Superior and Bond Sts., there is a large portrait of him wearing a Master Mason's collar. The lodge referred to is No. 243, and Jere E. Robinson was Tyler for a time.

ARCHIE BOALES was born June 12, 1870, in Hopkinsville, Ky., where he attended public school and graduated in 1886, then entered the Dental Department of Vanderbilt University, Nashville, Tenn., and graduated in 1890. Practiced in Milwaukee, Wis., until 1891, when he went to Sheboygan and remained until 1896; returned to Hopkinsville for one year, then came to Cleveland where he practiced until his decease Aug. 9, 1905; his remains were interred in Hopkinsville.

FRANK C. BRIGGS was born in Cranston, R. I., 1824, and came to Cleveland in 1854, he never was an operator, but from above date until 1900 he did "mechanical dentistry" for a great many different dentists in this city.

So far as we are aware, he was the first one here to limit his practice to prosthesis.

His name appeared in the city directory as Mechanical Dentist. He died here March 25, 1910.

CHARLES BUFFETT was born in Schaghticoke, N. Y., in 1824, and was a farmer; came here in 1851, and embarked in the grocery business and after retiring from that he taught for sev-

eral years in the Cleveland Institute, a private school on the "South Side" which was then called "The Heights." He began to study dentistry in 1863 and was graduated from the Pennsylvania College of Dental Surgery in 1866 and practiced here until 1904 when he retired. He died May 13, 1910, and was buried in Riverside cemetery. He was a lover of the microscope and did considerable work in that line, extending over many subjects.

He was an expert taxidermist, having prepared one thousand birds, many of which he shot down on the flats and along the Cuyahoga river. After office hours the birds were artistically mounted, and he had a large glass case containing hundreds of specimens which exemplify his skill. He was a very suave, pleasant gentleman and well liked by his professional brothers.

One of the charter members of Pilgrim Congregational Church, (1859), and later was made a deacon for life, notwithstanding the rule to elect deacons every five years.

LEWIS BUFFETT was born in Schaghticoke, N. Y., May 21, 1837. Early life was spent on a farm; studied dentistry with a New York dentist and was graduated from the Pennsylvania college of Dental Surgery, and came to Cleveland in 1859, and was graduated from—what now is—the Medical Department of Western Reserve University, 1865; he practiced dentistry here until 1889, when he went to Easton, Md., where he practiced until about the time of his demise Jan. 27, 1901; his remains were brought here and interred in Lake View Cemetery.

He lectured to the medical classes of his Alma Mater and held the following titles:

- 1874-5. Lecturer on Oral Pathology.
- 1875-6. Professor Oral Surgery and Dental Pathology.
- 1876-7. Professor Oral Pathology.
- 1877-8. Professor Oral Surgery and Dental Pathology.
- 1878-9. Professor Oral Surgery and Dental Pathology.
- 1879-80. Professor Oral Surgery and Dental Pathology.
- 1880-1. Professor Oral Surgery and Dental Pathology.

H. P. BURDICK, E. M., (Master of Education), M. D., was born in Alfred, N. Y., Dec. 12, 1819. Early life was spent on a farm; graduated from Alfred University 1845; Oct. 2, 1846,

went to Dansville, twenty-three miles away and had six teeth filled by Farley and Bristol, with whom he soon afterward began the study of dentistry.

Nov. 2, 1852, he came to Cleveland and attended the medical college, corner St. Clair and Erie, (now Medical Department Western Reserve University), and Mar. 22, 1853, received the M. D. In 1857 he practiced in Hornell, five miles from Alfred, one day per week and he was the only dentist in that vicinity.

From 1851 to 1871 he practiced in Cleveland, O., Alfred, N. Y., R. I., Pa., and Wis. For several years he kept a sanitarium at Hartsville, and Buffalo, N. Y. He was a seventh day Baptist, and for fifteen years kept a brief diary in one small book, but it contains nothing about dentistry.

He was called "The Old War Horse of the Temperance Cause," as he traveled around the country lecturing on temperance; this was his great object in life, with dentistry and medicine as auxilliary matters.

He died March 4, 1904.

S. B. BURNHAM's alma mater was Union College, Schenectady, N. Y., where he probably received an M. D., he practiced dentistry in Cleveland 1859, then went to Madison, Wis., and finally returned to Cleveland 1867, where he practiced until about 1880, when he retired. He was an invalid for the last few years of his life, but died suddenly in Chicago, May, 1905, aged about eighty-five, and the remains were buried in Forest Hill Cemetery, Madison, Wis.

M. J. DICKERSON was present when the Northern Ohio Dental Association was organized 1857, and was associated with N. H. Ambler for a time; later he opened an office at 253 Superior St., where he practiced several years.

WM. E. DUNN was born in Lyons, N. Y., May 18, 1823, and died in N. Y., Dec. 30, 1894, and was buried in Woodlawn Cemetery. In early life he was a farmer and later a mill owner and operator.

About 1853 he studied dentistry with Morgan and Burrill in Cleveland. He practiced in Delaware, O., 1856, Dayton, O., 1869, Watertown, N. Y., 1876, N. Y. City, 1879.

During the civil war he assisted in recruiting an Ohio regiment of which he was made commander. In 1867 he patented a mode of manufacturing full dentures of porcelain about which he says: "What I claim as new, is—A denture constructed by the application of biscuted or unglazed teeth to the plastic body or base while in the mold."

After a few years he manufactured and used enameled instead of biscuted teeth.

At a meeting of the Ohio State Dental Society 1867 a committee composed of J. Taft, B. T. Spelman, A. A. Blount, after a thorough investigation of W. E. Dunn's method, gave it their unqualified endorsement, adding: "Indeed we think it will supersede other styles of work."

THEODORE W. ENSIGN was born in East Claridon, O., June 6, 1847, and attended public school and lived on a farm until he was twenty years old, when he went to Burton, O., and studied dentistry with C. M. Richmond (1867), later he and E. Jacques bought out Richmond, and about one year later he sold out to Jacques and went to Vernon, Mich., where he practiced for two years, when he sold out and went to Jefferson, O., where he remained three years, and then he came to Cleveland (1873), and practiced for fifteen years, when on account of poor health he went to Los Angeles, Calif., where he practiced more than three years, when sickness obliged him to retire and he returned to Cleveland, where he died in 1891, and was buried at Claridon, O.

He was a good "all around" dentist, and the writer has seen gold fillings which he inserted, that have been in use over forty years.

He was an expert manipulator of "Celluloid" as a base for artificial dentures.

Those who knew him, considered him a pleasant gentleman and good friend.

J. H. FARNSWORTH was born in N. Y. City, Feb. 19, 1818, died in Detroit, Mich., March 28, 1895. He came to Cleveland 1833 and was here Feb., 1836, during this time he studied and practiced dentistry, then he went to Detroit where he acquired a large practice and was known as an ethical, generous, first-

class dentist. He was a great amateur oarsman and one of the founders of the Detroit Boat Club, 1836; member St. Paul's Episcopal Church.

His picture (with D. B., 1837, attached) appears in a group of 126 Michigan dentists published by F. D. Souchet, who also published (1903) a group of 125 Cleveland dentists.

JOHN GREENFIELD was born July 7, 1839, at Beaconsfield, Buckinghamshire, England, and came here in 1860, went to Ravenna, O., 1861 and studied dentistry with B. T. Spelman for three years, when he returned here and went into C. R. Butler's office for four years, then he practiced with A. B. Haliwell until 1870, when he went to London, England, where he operated for Dr. Sercomb for three years, then he began practice by himself at No. 11 Brook St., and continued there until his health failed, when he retired.

His death was caused by paralysis April, 1905.

S. P. HUNTINGTON studied here with B. Strickland, and he also studied medicine three years before commencing to practice dentistry in 1847 at Ashtabula and Painesville, O.; he moved to Eureka, Kansas, in 1869.

He was present when the Northern Ohio Dental Association was organized in 1857.

G. H. Hurd took out patents on inhalers and gas apparatus at different times, we believe one of them is No. 743,409, dated Nov. 3, 1893, but an improvement has been made and it is known as the Clark-Hurd gas apparatus. In the old one a small rubber tube was used to the end of which was connected a rubber bag and the face piece was fastened into this bag.

The term "Vitalized Air" was used as an advertising dodge by G. H. and C. S. Hurd, but never by H. R. Hurd.

He was born in Southington, O., Mar. 18, 1829, died in Cleveland June 7, 1904.

He helped survey for the Lake Shore R. R. and when in Denver, Col., was appointed by the government to care for the soldiers' teeth.

HUTSON R. HURD graduated in medicine at Cincinnati, O., 1846 or 7; practiced dentistry in Crawfordsville and Attica,

Ind., also Danville, Ill., about this time he used electricity for the painless extraction of teeth—the patient holding one pole of a battery, while the other was attached to the forcep.

He opened an office here Sept. 1, 1868, corner of Public Square and Ontario St., where the Park building now stands, where he made a specialty of administering nitrous oxid when extracting teeth; in this kind of practice he had received instructions from Dr. Colton of N. Y. City, who was considered an expert. They used crude inhalers up to 1872, when he (H. R. H.) made an improved rubber face-hood with proper cut-offs; his gasometer was made from a barrel, with zinc inner tank to hold the gas which he continued to manufacture until such time as it was sold in cylinders. In 1884 he received a patent for a nitrous oxid inhaler, and later one for a chloroform and ether inhaler. He died Sept. 6, 1905, aged eighty-five.

LUMAN C. INGERSOLL was a native of Ohio and one of four brothers all dentists, and in 1857 he was practicing here at 32 Detroit St. and about 1881 he went to Keokuk, Ia., where he died Nov., 1897.

He studied at Oberlin College, Ohio, and was graduated from the theological department.

He studied dentistry with N. H. Ambler of Cleveland.

Here follows the title page, etc., of his book: Dental Science Questions and Answers on Dental Materia Medica, Physiology, Pathology and Therapeutics, by Luman C. Ingersoll, A. M., D. D. S., Dean of the Dental Department of the State University of Iowa, H. H. Ogden and Son, Keokuk, Iowa, 1886.

DEDICATION.

To my coadjutors who have given to me such generous and ample support in all my work, this volume is respectfully inscribed.

PREFACE.

The three chapters of this book are a compendium of the lectures delivered by the author in the Dental Department of the State University. As the lectures were not intended to cover all our Dental Literature, the compendium of necessity must

come far short of it. The purpose has been simply to bring conspicuously into notice the fundamental facts and principles which underlie the practice of dentistry. Having that in view, the lectures were prepared from the standpoint of an office practice. In the lectures I cracked many nuts; in the compendium I have thrown away the shells and saved the meats. I have adopted the catechetical style as the most direct mode of fixing the attention upon the facts and principles to be learned, and the most concise mode of formulating instruction. This book contains 136 pages interspersed with blank leaves for taking notes of reading, or information derived from other sources, on the same subjects as are made points of inquiry on the page opposite.

Luman C. Ingersoll, Keokuk, Iowa,

July, 1886.

W. B. INGERSOLL, brother of T. D., L. C., C. F., all dentists, was a student of N. H. Ambler's; later he opened an office in Marble Block on Superior St. and practiced here in 1859-60-1.

DAVID R. JENNINGS was born in Ravenna, O., 1830; lived on a farm, studied dentistry with J. G. Willis in Ravenna, where he practiced twelve years, then came to Cleveland, Sept. 10, 1871, where he practiced until his demise Oct. 27, 1897, and his remains were interred at Ravenna. D. D. S. (Hon.) Ohio College Dental Surgery, 1867, M. D. (Hon.) Medical Department Wooster University, 1886.

He made full dentures of porcelain and was considered a good "all around" dentist, but his special liking was to make gold fillings, at which he was an expert.

He occupied the chair of Special Operative Dentistry in the Dental Department of Western Reserve University for a few years.

The World's Columbian Dental Congress was held in Chicago, Aug., 1893, and a beautiful commemorative bronze medal ordered as a souvenir, the design contained a wreath of oak signifying strength; ribbon bow, unity; initials and Spanish emblem, Columbus; laurel, merit; bright star, Chicago; eagle and flags, America. Obverse Chicago, Aug., 1893. The World's Columbian Dental Congress. Reverse 1893 Chicago 1839 Columbus 1492.

He was a member of the "Congress" and therefore, on a certain basis with other members, entitled to and did receive one of the above described medals.

J. KOCH came from Germany to Cleveland about 1861 and was a pupil of W. H. Atkinson, C. R. Butler and N. H. Ambler; after remaining here a few years he went to Strassburg, Germany. He always wanted a rule for dental operations, then he tried to make each operation according to its rule.

GEO. LANGSDORFF, of Mannheim, Germany, was graduated from Baden-Baden University and came to Cleveland about 1859 and was a pupil of W. H. Atkinson and C. R. Butler for some time, but finally returned to Germany.

THOS. McCUNE, Meadville, Pa., graduated from the Pennsylvania College Dental Surgery, 1857, and came to Cleveland in that year.

A. P. MORSE was born in Burlington, Vt., Aug. 31, 1807, and died in Cleveland, Aug. 2, 1878, and was buried in Riverside cemetery. He practiced on the west side (Ohio city) 1850-54, then moved to the east side locating on the corner of Ontario and Michigan Sts., June, 1854. He practiced here until 1870, when on account of poor health he retired.

From 1845 to 47 he was engaged in the wholesale and retail grocery business in Racine, Wis., and Detroit, Mich. From 1847 to 50 he studied dentistry in some office or at college.

EBENEZER MERRITT was born in Redding, Conn., Jan. 13, 1795; studied medicine with Dr. Allen at Salem, Mass., and graduated from Castleton Medical College, Vt., about 1820; soon after he went to Philadelphia, Pa., and studied dentistry with a French dentist, and later entered upon an itinerating practice, finally locating in Pittsburg, Pa., about 1825, and in 1828 he manufactured porcelain teeth and continued to do so until 1835. He used a mallet for condensing the surface of non-cohesive gold foil fillings in 1830.

A mallet which he made and used in 1833, has a hollow silver head filled with lead; the handle is ivory and it has been broken, and thus probably shortened.

The whole is of fine workmanship, and it shows very much hard usage. The size of the mallet now, viz.: head and handle together three and one-half inches, head one and one-half inches long and five-eighths of an inch in diameter.

He had a lucrative practice until 1852 when he removed to Cleveland and engaged in the coal business, he died here Sept. 5, 1864.

VOLNEY McALPIN was born in Crowland, Ontario, Canada, May 27, 1830, and in 1861 studied dentistry with Geo. A. Brown, Drummondville, Ontario. After five years he located in the "Oil Country," Pa., his first office was in Petroleum Center. In 1883 he came to Cleveland where he practiced until 1891 when he removed to Butler, Pa., where he practiced until 1899, retiring on account of failing health.

He died Sept. 1, 1900, and was buried in the "Friends Burying Ground," Pelham, Ontario, Canada.

HIAL H. NEWTON was born in Reading, Vt., Oct. 31, 1825, and was a farmer, but practiced dentistry for several years before he came to Cleveland, about 1864, where he practiced until 1889, when he went to Florida where he died in 1891.

R. A. Dinsmore of this city was a student of his.

BENJ. FRANKLIN ROBINSON was born in Concord, Mass., Mar. 26, 1809, died in Cleveland, April 9, 1884, buried in Lake View cemetery. In early life he was apprenticed to a carriage trimmer and harness-maker in Athol, Mass., from where he went to Elyria, O., and carried on his former business which was distasteful to him, so at the request of his brother, J. A. Robinson, he with his wife and child went to Salem, Mass., where he spent a year studying in his brother's office, then he came to Cleveland about 1849. This is date of first "ad" I found in newspaper.

While in Elyria and other places he taught singing school, sang in church choirs, played the "Cornet" and other brass instruments and manufactured artificial teeth. About thirty-four years old before he began to study dentistry.

JEREMIAH A. ROBINSON was born in Concord, Mass., May 31, 1812, and died in Grand Rapids, Mich., Mar. 3, 1897. He

was a descendant of Dr. John Robinson, of Leyden, Holland; his grandfather was a lieutenant-colonel in the Revolutionary war, and his father was a prominent citizen of Concord, Mass., where Jeremiah received his early education at the Academy; he was apprenticed to a watch-maker and served for six years. While in Concord his attention was first called to dentistry, by a traveling dentist who learned that he was skilled in the manufacture of steel instruments. In 1831 he went to Lowell where he worked as journeyman for a short time, here he met Dr. Mansfield a physician who was practicing dentistry and manufacturing his own artificial teeth of porcelain; after staying a year with him, he went to Boston, where Dr. Harwood taught him to fill teeth. In 1837 he practiced in Concord and Waltham, and from 1838-53 in Salem, then he came to Cleveland, O., and was associated with his brother B. F. Robinson and N. H. Ambler; later he had only his brother for a partner. In 1858 he went to Jackson, Mich., where he practiced until about the time of his decease; he used to say that if he never did anything more for dentistry than to help bring forth the Northern Ohio Dental Association, he should die and think his life had not been spent in vain. During the prime of his life he was in advance of the profession in many things and abreast in all; after he was eighty years old he made bridge-work and fillings that would be a credit to any man; he was active in society work and twice president of the State Dental Society, and was active in securing legislative enactments for the establishment of the dental department of the University of Mich., which at a later period conferred upon him the honorary title, D. D. S. About 1877 he invented a machine for the manufacture of "Robinson's Fibrous and Textile Metallic Filling," (Pat. May 2, 1878) and also used for lining his (vulcanite) Improved Patent Dental Plate, this is a shredded metallic alloy, mostly tin; it was on sale for several years, but has been superseded by Ambler's Cohesive Tin Foil.

Three of his sons, J. E., A. and W. F. were dentists, and his eldest daughter Martha used to assist him in carving and molding teeth, and his granddaughter, Mrs. Martha R. Ewald, who was graduated from the University of Mich., is now practicing dentistry in Brooklyn, N. Y.

He was an ardent prohibitionist and anti-slavery man and for many years was engaged in Mission Sunday School work; always a zealous supporter of the government during the civil war, and gave one of his sons to the service of his country's cause; he wrote for the press on questions of reform and general public interest, and his various poems attracted attention.

The last paper he read was before the Michigan State Society and it was published in the Ann Arbor Dental Journal in 1896; it is full of interesting professional experiences and otherwise. About a week before his death he was attacked with a severe influenza which was the immediate cause of his death, and thus passed away "Uncle Jerry," after serving his profession and patients for more than sixty years.

JERE E. ROBINSON (son of J. A. Robinson) was born in Lowell, Mass., Dec. 26, 1832, and studied dentistry with his father, coming to Cleveland at the same time (1853), where he practiced until he retired in 1900, from this time until his decease he lived with his daughter Martha R. Ewald who practiced dentistry in Brooklyn, N. Y., where he died July 13, 1907, and his remains were brought here and interred in Lake View cemetery.

At a meeting of the Cleveland City Dental Society (of which he was a charter memembr 1886), resolutions of kind regard for him, and sympathy for his family were adopted.

He received the honorary M. D. from the Cleveland University of Medicine and Surgery, where he was Professor of Operative Dentistry in the Dental Department, 1891-6. When a boy in his father's office, he became expert in carving teeth. After 1853, with the exception of a few years spent with B. T. Spelman of Ravenna, O., all his professional work was done in Cleveland.

In 1873 he made and used gold or silver springs and bands for correcting irregularities of the teeth. For a long time, Tyler of Bigelow Masonic lodge. In 1876 a call was issued by "Many Republicans" requesting him to accept the nomination for Police Cominssioner, but he declined with thanks.

W. F. ROBINSON, son of J. A. Robinson, was born in Lowell, Mass., 1836, came to Cleveland with the family 1853, studied

and practiced with his father, then went to Youngstown, O., for a short time, and from there to New Orleans, and when the civil war broke out he enlisted in the 4th Michigan Infantry and was chosen Lieutenant, but men in the ranks were few, so he gave up his grade as officer and joined the ranks. He was severely wounded at Gettysburg, but finally became captain; he joined the invalid corps for a time, but later joined his company, fighting with them until the end of the war; he preferred to be called captain instead of doctor; later he was killed in Tucson, Arizona, by the Indians.

IRA EMMIT SAMPEL was born in Columbiana, O., Nov. 13, 1857, and graduated from the Dental Department of Michigan University, 1880, where he was offered a professorship, but declined and went to Salem, O., where he entered into partnership with his brother Homer in the practice of dentistry. He came to Cleveland in 1885, where he practiced until 1892, when he died suddenly of heart disease. Graduated from the Homœopathic Hospital College, Cleveland, (M. D. Hon.) where he was a professor in the Dental Department.

At a meeting of the faculties resolutions of deep regret and the highest praise for Professor Sampsel, and heartfelt sympathy for his bereaved family, were adopted and presented to Mrs. Sampsel on silk, bound in leather.

At the time he joined, he was probably the youngest member of the Cleveland Dental Society, before which he read a paper (one week before his decease) which was published in a Philadelphia Dental Journal.

He was a sympathetic, careful operator, keeping a nervous patient under the influence of chloroform for two hours while inserting a gold filling. He made a study of anesthetics and frequently administered them for other surgeons.

Everyone liked him; he was not known to have an enemy.

FRANKLIN S. SLOSSON was born in Conn., 1803, went to Binghamton, N. Y., for some time, and came to Cleveland in 1846; was a singing-master in all of above places and a deacon in the "Old Stone Church" here, and led the choir for several years when Dr. Aiken was pastor.

He was graduated here at (what now is) the Medical Department Western Reserve University, and studied dentistry here with M. L. Wright, and later opened an office in Rouse Block. Before 1859 he filled many cavities and root-canals with tin foil. He practiced here until 1880 and died 1887, from paralysis, and his remains were interred in Erie (now 9th St.) cemetery.

BENJ. STRICKLAND was born in Vt., 1810, and when about twenty-five years of age came west to Pittsburg, Pa., where he took a boat to Wellsville, then by the "Pioneer Fast Stage Line," through in thirty hours, to Cleveland; this was a daily line which left the American House (now standing) on Superior St., in 1835, he remained here until he retired in 1876. President of Northern Ohio Dental Association *eight* years in succession. He received the honorary D. D. S. from Baltimore College Dental Surgery 1843.

STRICKLAND'S GOLD SOLDER.

One part of alloy (composed of equal parts of silver, copper, zinc) added to four parts of coin gold.

In the "Annals of Early Settlers," G. F. Marshall says: "I would like to get in a word or two respecting those faithful members who passed away so nearly together, and who are worthy of more extended and better mention than I am able to give them; I refer to the venerable Dr. Strickland and his good wife; for nearly fifty years they had been close neighbors of mine, and in close friendship. In saying that this couple were peculiar, every one who knew them would coincide. Although the two were somewhat dissimilar in disposition and habit; he was staid, retiring, reticent and isolated, while she was very talkative and lively."

B. Strickland died here and was interred in Lake View cemetery in 1889.

JOHN STEPHAN was born at Essenheim, Germany, in 1848, and came to America with his parents in the spring of 1851. He attended the public schools in Cleveland and through his acquaintance with a neighbor, W. H. Atkinson, who was a noted

dentist, became interested in that profession. In the spring of 1864, he became a student of J. R. Daniels, and later of H. H. Newton.

He attended the Ohio College of Dental Surgery at Cincinnati, where he graduated in the spring of 1873 and then opened an office in Cleveland shortly after. He was President of the Northern Ohio Dental Association in 1889. He died June 25th, 1890, and was interred in Lake View cemetery.

Was a member of Ohio State Dental Society, American Dental Association. Probably he wore the first piece of bridge-work made here, and he foretold the coming of the inlay. He read and discussed many papers before different dental societies, especially the Northern Ohio.

Resolution passed by the Cleveland Dental Society:

“Whereas, Divine Providence has called one of our number from us, Dr. John Stephan, therefore, be it

Resolved, That we extend to his grief-stricken family our deepest sympathy in their affliction.

That we feel keenly our loss of one always interested in the progress of dentistry, and that we recommend that as many of this society, as possible, attend the funeral, and that this resolution be sent to the Ohio State Journal for publication, and our Secretary be instructed to send a copy to the family.

C. R. BUTLER,	}	<i>Committee.</i>
CHAS. BUFFETT.		
J. R. BELL.		
MARTHA J. ROBINSON, <i>Secretary.</i>		

PORTER GRANGER SOMERS was born in Newberry, O., Oct. 9, 1818; studied medicine with Dr. Warner, Brunswick, O., and practiced about thirty years; later he studied dentistry with C. P. Bailey, Cuyahoga Falls, O., where he practiced medicine and dentistry about fifteen years. He was coroner of Summit county for several years and a member of the state legislature in 1854-5 and came to Cleveland 1871, but only practiced medicine or dentistry a very little, as he was engaged in other occupations. He died here Feb. 28, 1890, and was interred at Cuyahoga Falls, O.

EDGAR C. SWAIN was born in Ravenna, O., and at the age of fifteen entered the office of D. R. Jennings as a student, he remained with him until he became his partner and finally succeeded him (Jennings) when he moved to Cleveland. For two years E. C. Swain practiced in Indianapolis, Ind., but he returned to Ravenna, and in 1888 he came to Cleveland and was associated with D. R. Jennings for two years, then he began practice by himself and continued until his decease in 1903.

The remains were interred in Ravenna.

FREDERICK K. THORPE was born in Sandusky, O., 1846, and was graduated from the public school and then attended Oberlin College, (O.), for two years; in 1862 he became a dental student of N. H. Ambler in Cleveland. Practiced dentistry in Seville, O., 1864-70 and then removed to Cleveland where he practiced 1870-5, when ill health forced him to retire, and he died June, 1876.

S. L. THORPE, his brother, practiced dentistry here for two years, then entered the practice of medicine, which he still continues.

ROYAL W. VARNEY was born at Independence, O., Oct. 8, 1839; enlisted in the thirty-first regiment Ohio Volunteers Infantry, and was appointed assistant surgeon, and went "with Sherman to the sea;" graduated from—what now is—Medical Department Western Reserve University, 1863.

He was a dental student of C. R. Butler, W. H. Atkinson and Corydon Palmer, and after the civil war he was associated with G. E. Hawes in N. Y. City for a few years, then he purchased a home, in which he had his office, on W. 38th St.

He received the title M. D. S. in 1871, and was a member of the Society of Dental Surgeons of N. Y. City; American Microscopical Society; First District Dental Society, N. Y.

He was a natural mechanic and designed a set of thirteen instruments for condensing cohesive gold foil, which were placed on the market by S. S. White and known as Varney's pluggers, duplicates of which are still in use. The pluggers are referred to in the American System of Dentistry in the chapter by Louis Jack; they were originally for use with the hand mallet, but later the manufacturer adapted them to the electric mallet and

cone-socket handle; they varied in price from sixty cents to one dollar and seventy-five cents. He was a king among operators, and built up whole crowns of teeth with gold foil.

He instituted bi-monthly clinics before the First District Dental Society of N. Y. and was among the very first to make systematic use of the rubber dam.

The writer has a letter from him dated at 21 Bond St., N. Y., Jan. 20, 1870, viz.: "It is my settled conviction that the man who does not use rubber dam for keeping cavities dry during the operation of filling, is a long way behind the lighthouse, and must soon mend his ways, or be in fact, if not in reputation, a foggy."

In whatever he undertook, he always aimed for the highest and best; he used his microscope for pleasure and profit, and he had a case containing thousands of slides, many of which he mounted; he sought causes of phenomena which he observed, and in the fullest sense was a man of deeds and not words, as he seldom spoke in a dental society, and *very* seldom wrote a paper.

He was a skillful violinist, but he never boasted about any of his accomplishments; he was possessed of the highest integrity, and was a royal and loyal friend.

He died in Savannah, Ga., April, 1872, cause, tuberculosis.

J. F. WARK graduated from Dental Department Western Reserve University, 1901, and was demonstrator of Prosthesis 1903-4-5, died in Cleveland, 1906.

PROF. GEO. WATT, of Cincinnati, who visited here in 1854, says: "I found Drs. Strickland, Slosson, Atkinson and the Ingersoll's, whose offices were on opposite sides of a spring branch, so deep that it fairly split the ground, and hence the region was known in early days as the cleaved land, and when civilized surveyors came to measure the land, they found a cow drinking at, and a little below a hog wallowing in the creek, so for convenience they called it, for the present, cow-and-hog-creek. The little rill grew (in name) to Cuyahoga river, and a hamlet or two grew to a city, with one very Superior street, laid out according to Euclid (avenue) and therefore, geomet-

rial throughout. The pioneer settlers would cleave to the original idea of the split land, but consented to bad spelling, and hence the name is Cleveland."

The Partial Transactions of the Northern Ohio Dental Association—1857-1907—edited and compiled by the writer, contains an extensive biographical sketch of Prof. Watt.

M. L. WRIGHT was in practice here in 1840; he was graduated from the Cleveland Medical College (now Medical Department Western Reserve University) in 1847 and practiced dentistry here until about 1863 when he went to Ripon, Wis., where he died in the same year. He was patentee of "Porcelain Plate Teeth" and probably the first one here to make full porcelain dentures.

His formula for gold plate was viz.: add five grains of silver to the pennyweight of gold coin; for solder, to this plate add three grains of sheet brass to the pwt. of plate.

His son, M. L. Wright, and grandsons, H. D., M. L., W. W., are dentists here.

W. J. Beattie was an assistant in M. L. Wright's laboratory, he was not a dentist and never practiced, but he was an engraver, stencil plate maker and die-cutter.

CHARLES F. ALLAN was born here Nov. 2, 1844. He studied in the grammar school, and graduated from the Central High. In 1862 he entered the Union Army, and fought with Army of Tennessee during the campaign that culminated at Vicksburg, July 4, 1863.

His brother George graduated at Kenyon College (O.), 1859, and from Ohio College Dental Surgery, 1861, and then settled in Newburgh, N. Y. Charles went to him in 1865, studying with him, and at the Pa. Dent. College, and took his examination before the N. Y. State Board, and received the degree of M. D. S.

Returning to Newburgh he was associated with his brother, but he succeeded to the practice when his brother moved to New York City.

He was a member of the City Club (Newburgh), Odontological Society of N. Y., Second District Dental Society, Chair-

man Section of Stomatology American Medical Association, and Vice-Pres. N. Y. Institute of Stomatology, which adopted viz:

Whereas, Our beloved friend, Dr. Charles F. Allan was removed from us by death, Jan. 4, 1906; be it

Resolved, That the Institute deeply deplores the loss of an efficient member, an upright and cultivated gentleman, and an honored officer, and that the sincere sympathy of the members of this society be conveyed to the family of Dr. Allan, with whom they mourn.

His friendship has brought into our lives something of help and uplift that remains, and our life is made richer by the treasure.

May the memories of his virtues, the charm of his personality, quicken in us the growth of similar traits. So shall his life go on through ours, and the world be richer.

CHARLES O. KIMBALL,
E. A. BOGUE.



Advertisements from Newspapers

Advertising reflects the decline or progress of any science or art, and anyone who is interested in a special subject, can read between the lines and gain valuable historical information. Past "Ads" are interesting now---present will be.

Cleveland Herald, July 24, 1823.

Philosophical Amusement.

Mr. Beecher would respectfully announce to the Ladies and Gentlemen of Cleaveland, that he intends offering for their amusement, This Evening, at the home of Mr. A. Kingsbury, an exhibition of some very interesting Chemical Experiments. In addition to which, will be exhibited the powerful and astonishing effects of the Nitrous Oxide, or Exhilarating Gas, which will afford sensations of pleasure and delight to those that breathe it, and afford amusement to the spectators. The above experiments have their foundation in Science and Fact, and are calculated to enlighten the human mind. Exhibition will commence at half past 7 o'clock. Admittance, 25 cents. Tickets to be had at the Bar. Seats reserved exclusively for Ladies.

The writer has examined thousands of Cleaveland newspapers, beginning with 1818, but found no reference to dentistry until the following:

Cleveland Herald, June 30, 1826.

Dentist.

The subscriber has taken a room, for a few weeks, at the Franklin House where he offers to perform all operations in Dentistry.

Artificial Teeth inserted (inmost cases without pain) in such a manner as to be equal in appearance, and nearly in durability to natural ones.

Persons residing in the village can be attended at their homes.

S. HARDYER.

The above notice appears again July 14-21-28 and Aug. 4, to the latter is added: "I will remain only one week longer," but the notice appears again Aug. 11, and says: "I will remain only one week longer."

At this time Cleaveland was described as being a pretty place on a high bluff and composed of some 50 houses, with about 500 inhabitants.

Herald, July 28, 1826.

We have often said that the teeth require great care. First let them be well set in order by removing the tartar, etc., with a proper instrument, and using frequently a large and stiff brush

as can be procured, it should be used dry two or three times a week; for this will harden the gums and prevent the collection of extraneous matter, and give a fine polish to the teeth. A simple brush however hard, can never injure the enamel, and a soft brush is worse than useless. The best brushes seldom admit of use more than a month or two, when they become soft and are good for nothing. Cologne water diluted may be used occasionally, and will be found both agreeable and useful. It will give a fine clear complexion to the teeth, and preserve the breath pure and fragrant.—Medical Intelligencer.

Herald, July 28, 1826.

For the benefit of those who cannot have the advantage of proper instruments to remove the tartar, we recommend the use of a penknife as a substitute. In many cases the tartar can be readily scaled off by it, leaving the teeth perfectly clean, and without the slightest injury to the enamel. Great care should be taken to remove every particle between the necks of the teeth and gums. Charcoal prepared by burning bread will be found better than cologne water. It should be pulverized immediately after burning, and kept for use in a tight vessel; use it as a dentifrice two or three times a week. Teeth should be brushed perpendicularly, in order to cleanse between them; the inner surfaces should not be neglected; the foul ones of the under jaw in particular.

A DENTIST.

(No doubt the above was written by S. Hardy.)

Herald, Dec. 7, 1826.

N. E. Crittenden next door to the Franklin House has on hand a quantity of gold leaf. Advertises Toothbrushes, July, 1829, Aug., 1830, Jan., 1832. (silver picks), July, 1834. Cleveland Advertiser, Aug., 1831, Teething Rings.

Herald, April 15, 1830.

Cambrian Toothache Pills which give immediate relief without injuring the teeth. On trial this will be found one of the best remedies for this painful complaint. Price 50 cents per box.

Herald, May 20, 1830.

British Antiseptic Dentifrice. For cleaning, whitening and preserving the Teeth and gums. The present proprietor wishes most particularly to recommend to the attention of the public

as perfectly exempt from all those acids which in general form the basis of tooth powders in common use, and which, although they may whiten the teeth for a short time, must inevitably destroy the enamel by their deleterious action on this beautiful covering of the teeth. The consequence is, that the enamel, which is the shield provided by nature to protect the spongy and nervous internal structure, is rapidly corroded by these acid ingredients, become more discolored than ever, and exposes the inner portion of the tooth to caries and a rapid and certain decay. By the use of the British Antiseptic Dentifrice in the morning, as occasion may require, with a brush moderately hard, and cold water, the accumulation of tartar will not only be prevented, but the teeth rendered beautifully and permanently white, and the gums restored to that freedom from soreness, that hardness and efflorescence which are the sure tests of their healthy state, and the best guarantee of that natural fragrance of the breath which never can be expected in connection with foul teeth and scorbutic unhealthy gums. Price 50 cents per box at Dr. J. Mills Drug and Medicine Store.

Herald, Dec. 7, 1831.

Handerson and Punderson, Druggists, advertise: A lot of superior Tooth Brushes, and July 12, 1833, Teeth Extractors with ivory and ebony handles, and Chlorine Tooth Wash: Weekly Whig, Mar. 31, 1835; One case superior Dentists' Instruments, for sale cheap.

Advertiser, Aug. 29, 1833.

Dr. Thomas White's Vegetable Toothache Drops. The only specific ever offered to the public from which permanent and radical cure may be obtained from that disagreeable pain the toothache with its attendant evils, such as fracturing the jaw, thence to the head, producing a rheumatic affection, with many other unpleasant effects, such as a disagreeable breath, bad taste in the mouth, etc., all of which are produced from foul or decayed teeth. I am happy to have it in my power to offer to the world a remedy, that will not only remove the pain nine times out of ten, if properly applied, but preserve the teeth from further decay, and arrest the disease in such as are decaying and have not commenced aching, restoring them to health and usefulness. Same "ad" Aug. 3, 1837.

Certificates.—Mr. Thomas White; I have the pleasure to inform you, that agreeable to your request, I have been using your toothache drops in my practice for some time past, and I must acknowledge that I find them far superior to anything I have ever yet known for that purpose, you are entirely safe in recommending them to cure nine times out of ten; for from the success that I have had, I believe your recommendation falls short of their merits. I am well convinced that it will cure most cases of toothache when it is timely and properly applied. I am not able to say much at this time as to its preservative properties, but from what I have seen of your teeth that have long been cured and preserved from decaying, and from a few weeks experience, I am decidedly of the opinion that it will have a very beneficial effect in preserving the teeth, and recommend it, hoping that it may prove a blessing to humanity, and advantages to your self. With respect I remain, Yours, etc.,

WM. I. A. BIRKEY, *Surgeon Dentist*,

No. 99 South Fifth St., Philadelphia, Pa., Sept. 22, 1829.

Mt. Pleasant 3d Mo. 18th, 1829.

Sometime since Thomas White deposited some of his toothache drops with me in order to try validity thereof, and to ascertain whether there was any propriety in making the thing public. I have tried it in about forty cases and have only failed in two instances, and these were more of a rheumatic affection of the jaw, than idiopathic odontalgia, and on that account I think was a failure. They certainly are worth trial of every person who labors under that disease of the teeth. DR. W. JUDKINS.

For sale at Handerson and Punderson's Drug and Medicine store. Cleveland, June 27, 1833.

Advertiser, Jan. 22, 1835.

T. White's Toothache drops are recommended by Wm. I. A. Birkey, Philadelphia, and in Oct. it is signed Jonathan Doge, Dentist, 5 Chambers St., N. Y.; with this "ad" is a "cut" of a man's head with the mouth open and a man's hand holding an instrument in the mouth. These "drops" were advertised here extensively in 1834-5-6-7-9, and in the News Letter, July 28, 1829 Dr. H. Vaughan recommends them.

Herald, Aug. 1, 1835.

Doctors Ware and Bradley have formed a connection in the practice of Operative Dental Surgery, Diseases of the Eye and Ear and Practice of Medicine. Dr. Ware will attend to Operative and Dental Surgery; Dr. Bradley to Diseases of the Eye, Ear and Practice of Medicine. Population about 5,000.

Whig, Nov. 4, 1835.

Just received 500 of Dr. Ambler's (D. C. Ambler, N. Y., 1828) premium Incorruptible Teeth, suitable for inserting on pivot or gold mountings. Also a large assortment of Tooth Brushes, together with a good article of Tooth Powder, prepared by the subscriber. J. S. Ware, Surgeon Dentist, office Superior St.: Same "ad" April 13, 1836; also in Daily Gazette, May 25, 1836.

Mr. F. Du Souchet in a letter to the writer in 1908 from Detroit, Mich., says: "J. L. Ware came here from Cleveland in 1836 and practiced until 1845, when he sold to F. E. Bailey and removed to N. Y. City, where he practiced until his death. Bailey who was from Ohio, practiced here a few years and then returned, as he had sold, about 1847, to W. P. Meacham another Ohio man."

Gazette, Feb. 7, 1836.

Dr. Ware having removed from Cleveland, the practice of Dental Surgery will be continued by Dr. J. H. Farnsworth, who respectfully tenders his services to the citizens of Cleveland and its vicinity. Having fitted a room in the Franklin Buildings, No. 6, and provided a large supply of Incorruptible teeth, customers can be supplied from one to an entire set, exactly to correspond with the living teeth, set after the latest and most modern principles of Dental Mechanism. Dr. F— will make Cleveland his permanent residence, therefore is prepared to warrant his operations, and in doing so offers the public an opportunity to avoid imposition, and the injurious results which so frequently attend and follow the practice of itinerant dentists. All operations on the teeth, gums and mouth will be performed with the least possible pain, and correct professional skill. The only reference which Dr. F— deems necessary, is his own work. Irregularities of the teeth in children prevented and remedied

in adults. Chlorine Wash, Tooth Powders and Brushes, a superior article, for sale. Country dentists supplied with incorruptible silicious Teeth by the hundred.

J. H. FARNSWORTH, *Dentist*.

Gazette, May 18, 1836.

A Card.—Doct. Ware respectfully informs the public that he has returned, and is now ready to perform with care and ease to his patients, all operations connected with Dental Surgery. He also returns his sincere thanks to the public for their liberal patronage, in his profession. A good supply of Incorruptible Teeth on hand. Office on Superior St. Same “ad” Nov. 2nd.

Gazette, July 11, 1836.

Chlorine Tooth Wash—This compound effectually cleanses the teeth and mouths, speedily removes all canker or soreness, the smell or taste of tobacco, and all that is offensive in the breath. For sale by Handerson and Punderson.

Herald and Gazette, July 6, 1836.

Dr. M. Hitchcock's Magnetica Odontica.—The Utopian dreams of the alchymist are realized and a remedy discovered for preserving those important and beautiful appendages of the human system, by the use of Magnetica Odontica, which by its attractive and purifying and strengthening qualities removes all extraneous substances from the teeth and preserves them in their natural brilliancy and the gums in soundness and beauty. It is ascertained from experience that when used, the teeth will never decay, but remain till the latest age of man with their natural wear. When they are decayed, its progress will be arrested and the teeth preserved and prevented from aching. The use of it will save the great expense of filling, which when performed by unskillful persons is very injurious to them. A gentleman not long since came to me whose teeth was fast going to decay; they were loose, his gums were spongy and feverish, his breath fetid, I advised him to use my Odontica, which he did, and in one week his teeth were firm in their sockets, his gums resumed their health, his breath was corrected. All this cost 50 cents, a brush and a little exertion. I repeat, I do not believe the teeth will decay if this is used as directed.

The preparation is on different principles than any other in use. Since this was written, another and another, have called on me and expressed their gratification for the great benefit they have received from the use of my Odontica. They say no money would induce them to be without this invaluable article. Sold wholesale and retail by A. Hitchcock & Co., 117 Genesee St., Utica and by Handerson and Punderson, sole agents, Cleveland.

Whig, Oct. 20, 28, Nov. 4, 1835.

Dr. E. N. Manning, Surgeon Dentist from the city of Rochester, N. Y., will remain a short time at the Franklin House, where he will be ready to attend to all who may need any operations upon their teeth. Having a good supply of durable composition Teeth, that so perfectly resemble the natural teeth as not to be detected; natural Teeth, pure Gold Foil for filling decaying teeth, etc., etc., together with skill and experience, in the practice: Dr. M. can assure all who may favor him, of receiving perfect satisfaction. N. B. —References can be made to Mr. Amos Tuffts, Col. Samuel Stone from Rochester, Mr. Daniel Collins from Brockport and other gentlemen from Monroe county, N. Y.

Gazette, Nov. 4, 1835.

Dr. B. Strickland, Dentist and Manufacturer of Incorruptible Teeth, respectfully informs the citizens of Cleaveland and its vicinity, that he has determined to settle permanently in this village. He now offers his services to the public in every branch of Dental Surgery. His time will be wholly devoted for the relief of those who are unfortunately suffering from disease or loss of teeth. Having had several years experience in the practice of his profession, he confidently hopes to give perfect satisfaction to all who may please to favor him with business. Office, No. 21 Central Buildings, corner of Superior and Water Street. Nov. 2, 1836, B. Strickland, Surgeon Dentist, will supply members of his profession with Incorruptible Teeth, made to order on short notice. Persons wishing to have Teeth inserted, are invited to call and examine his stock of Teeth on hand. No. 21 Central Buildings. Nov. 16, 1836, Dr. Strickland particularly invites his friends and the public to the preservation of their Natural Teeth as the most important branch of

his profession. His business is warranted equal to the encouragement given at the time of application. He will visit Ladies at their rooms in the morning, and may always be found in the afternoon at his office.

Cleveland Daily Gazette, Nov. 21, 1836.

New Teeth.—B. Strickland, Surgeon Dentist, will supply members of his profession with incorruptible teeth made to order, or, on short notice. Persons wishing to have teeth inserted are invited to call and examine his stock of teeth on hand. Office, No. 21 Central Buildings, corner Superior and Water. Dr. Strickland particularly invites the attention of his friends and the public to the preservation of their natural teeth, as the most important branch of his profession. His business is warranted equal to the encouragement given at the time of application. He will visit Ladies at their rooms in the morning.

Whig, Nov. 24, 1835.

Kreosote for curing Tooth Ache.—This substance, of a recent German discovery, comes highly recommended as an effectual cure for the Tooth Ache. It destroys the sensibility of the nerve without causing any pain. For sale by Strickland and Gaylord. Same "ad" Dec., Jan., Feb., Mar., Apr., May, 1836.

Daily Advertiser, Mar. 21, 1837.

Dr. Strickland, Dentist, Central Buildings, corner Superior and Water St. Dr. Strickland takes this opportunity of expressing his thanks to his friends and the public for the very liberal patronage extended to him in the line of his profession, and hopes by strict attention to his business to continue to merit the confidence of all who are afflicted with carious teeth. Dr. S. would also take the liberty of presenting to the citizens of Cleveland the following testimonials of his acquirements and ability as a dentist.

The undersigned judging from personal acquaintance with Dr. Strickland, and acquaintance with his professional business, believe that he is thoroughly acquainted with his profession, and as a dentist we confidently recommend him to our friends and the public: Dr. Long, Dr. Cushing, Dr. Hicks, Dr. Terry, Dr. Mills, Dr. Brown, Dr. Johnstone, Dr. Otis, Dr. Brayton, Dr. Underhill, Dr. Hewitt, Dr. Inglehart, Dr. Mendenhall.

Dr. Strickland may always be found in the afternoon (and all other hours when not absent on professional business) at his rooms in the Central Buildings on the corner of Superior and Water Streets, No. 20 up stairs.

The above notice appears during Mar., Apr., May, June, July and Aug. 1, 2, 3, and maybe longer.

Dr. Strickland, Dentist, No. 21 Central Buildings, corner of Superior and Water Sts.

This card appears in the "Advertiser" Apr. 8 to 14, and in some issues it appears *twice*.

Daily Advertiser, June 10, 1837.

Dr. Strickland says: "Dentists residing in the country can be supplied with incorruptible teeth, Gold and Tin foil and most other articles used by dentists and may always be found in the afternoon at his office.

Advertiser, Mar. 2, 1837.

The Teeth, Articulation, Health and Beauty.

Dr. J. A. Cody, Surgeon Dentist, respectfully intimates to his friends, and the citizens of Cleveland, that he has taken an office in the City Block, where he will at all times be ready to perform operations on the teeth, surgical and mechanical. All defects of the mouth, corrected and made, not only to resemble nature in her beauteous workmanship, but also to add comfort to the afflicted. All manner, shape, and form of teeth, set with neatness and despatch, on pivots, plates of gold, or platina.

Advertiser, June 5, 1837.

Richard Coredon, M. D., Surgeon Dentist, respectfully informs the Ladies and Gentlemen of Cleveland, that he has taken an office in the Hancock Block, corner of Seneca and Superior streets, where he will be happy to attend to all those who may favor him with their attention. His extensive practice in his profession, both in the U. S. and Europe, entitles him to say, that in no operation on the Teeth, however critical, can he be excelled, in point of ease and elegance, by any other operator whatever. Silicious, metallic, or incorruptible Teeth inserted, from one to a full set. Teeth filled with Gold.

The above appears during June and July 1 to 18.

Advertiser, July 5, 1837.

Richard Coredon, M. D., Surgeon Dentist, Member of the Royal College in London; Office, No. 34 Superior St., next door to the Post Office.

The above appears during most of July.

Cleveland Daily Advertiser, Aug. 4, 1837.

Drs. Coredon and Sargeant, Surgeon Dentists, No. 6 Franklin Buildings, Water Street.

Advertiser, Aug. 3, 1837.

Herald and Gazette, Oct. 13, 1837.

Dr. B. Strickland, Surgeon Dentist and manufacturer of incorruptible teeth, No. 9 Central Buildings, corner of Superior and Water Sts. This card appears again Jan., 1838.

Herald and Gazette, Dec. 8, 1837.

Dr. Strickland respectfully informs his friends and the public, that he has removed from the 3rd story to rooms No. 9 and 15 in the 2nd story of the Central Buildings on the corner of Superior and Water Streets, where he is prepared to perform all operations on the teeth in a style not surpassed by any of his profession. His rooms are easy of access and retired and he assures his friends that no effort shall be wanting on his part which may conduce to render them pleasant to those who may favor him with a call. As Dr. S. intends making Cleveland his place of permanent residence, he hopes to afford an opportunity to ladies and gentlemen residing in the country at a distance, to employ an operator who will be responsible for the manner in which his business is done.

The undersigned judging from personal acquaintance with Dr. Strickland, and acquaintance with his professional business, believe that he is thoroughly acquainted with his profession, and as a dentist we confidently recommend him to our friends and the public. Drs. Long, Hicks, Mills, Johnstone, Brayton, Hewitt, Mendenhall, Cushing, Terry, Brown, Otis, Underhill, Inglehart. The above also appears Jan. 12, 26, 1838.

Herald and Gazette, Feb. 22, 1838.

Cambrian Tooth Pills.—The relief is immediate without the least injury to the teeth. Price 50 cents a box. Same Aug. 22, for sale by Stickland and Gaylord, Handerson and Punderson

Herald and Gazette, Mar. 1, 1838.

Dentist.—A. Blakesley, Dentist from Utica, N. Y., has taken rooms at the Franklin House where he will remain a short time and where he will attend all calls in his profession.

Reference may be had to Rev. S. C. Akin, N. C. Baldwin, Dr. W. A. Clark and Alex. Seymour.

The above also appears Mar. 8, Apr. 5, 12.

This Blakesley was of Foster and Blakesley, (Utica, N. Y.), who had a fine practice. About 1838 he came through here introducing Watt's crystal gold foil. He practiced here a short time, but sometime later than May, 1839, sailed for Cuba and unfortunately fell overboard and was drowned.

Herald and Gazette, May 3, 1838.

J. A. May respectfully informs the citizens of Cleveland and vicinity that he has taken Room No. 14 at the Franklin House where he may be found at all times to receive calls in the line of his profession. The above appears May 10, 17, 24, July 5.

Same paper May 17, 1838. Dr. Strickland continues to perform all operations for the preservation of the Natural Teeth at his rooms No. 2 Water St., corner of Superior. A perfect imitation of the natural teeth, warranted never to decay or change in color, just received.

The above appears May 24, June 7, 14, July 5, Aug. 2, 16, and Sept. and Oct. In the business directory of the paper, appears a standing card for the year, viz.: Dr. B. Strickland, Surgeon Dentist and manufacturer of incorruptible teeth, No. 9 Central Buildings, corner of Superior and Water Streets.

This card appears during Jan., 1839.

Herald and Gazette, June 28, 1838.

Gold Leaf of superior quality for sale at the manufacturers' prices by B. Strickland, Dentist, No. 3 Water St. This also appears July 5, 12, and Aug. 16.

Herald and Gazette, Oct. 30, 1838.

Surgeon Dentist.

D. V. Bradford, M. D., Surgeon Dentist, has opened an office on Superior Street in the Brick Block adjoining the Com-

mercial Bank of Lake Erie. Dr. B. having pursued the practice of Medicine and Surgery together with Surgeon Dentistry for several years in the State of N. Y., is of the belief that his knowledge of the Anatomy and Physiology of the teeth, together with operative dentistry, will enable him to give satisfaction to his patrons. References: Drs. J. Mills, C. A. Terry, M. L. Hewitt, J. Foote.

The above also appears Oct. 31, and every day in Nov., Dec. and Jan. 1, 1839.

Herald and Gazette, Dec. 19 to 29, 1838.

Dr. Strickland having abandoned the idea of removing from Cleveland, will attend all calls in his profession at his old rooms corner of Water and Superior Streets.

Same paper, Jan. 2, 1839.

Dr. B. Strickland, Surgeon Dentist and manufacturer of incorruptible teeth, No. 107 Superior St., between Seneca St. and the Public Square. This card appears during Jan., Feb., Mar., Apr., May, June, July, Aug.

Same paper, Mar. 8, 1839.

A. Blakesley,
Dentist,

From Utica, N. Y., has returned to the city, and will be at the American House for a short time.

This card appears during Mar., Apr., May 1, 2.

Daily Herald, Aug. 15, 1839.

Orris Tooth Wash.

Sound teeth and whole teeth are the most valuable portions of poor humanity; but how many neglect the attention necessary for their preservation, even when surrounded by all the means needed. Among these we know of none more pleasant and effective than the Orris Tooth Wash, it cleans and whitens the teeth, strengthens the gums, purifies the mouth and sweetens the breath. We recommend its use to all, young and old.—Boston Morning Post.

The Orris Tooth Wash is the best detergent we ever used on our enamel.—Boston Transcript.

I have used the Orris Tooth Wash and having been made acquainted with the various articles of which it is composed, feel great pleasure in recommending it as an agreeable, wholesome and efficient Wash for the mouth. Eleazer Parmley, No. 11 Park Place, N. Y., Jan. 1833-39.

Similar recommendations are signed by John Randall, M. D., Boston, Sept. 7, 1839, Walter Channing, M. D., Boston, Dr. J. Parmley, Dentist, Augusta, Ga., 1838, T. W. Parsons, Boston, Sept. 10, 1822. Sold by Stickland and Gaylord, Cleveland, and at the Ohio City Drug Store.

Above "ad" in Herald, Jan. 8, 1840.

Weekly Advertiser, Apr. 25, 1839.

Not There.—Dr. Strickland has removed to 107 Superior St. between Seneca St. and the Public Square, where he is prepared to attend all calls in the line of Dental Surgery. This "card" is continued throughout remainder of the year, and also appears Jan., Feb., Mar., 1840. In the issues June 6, 1839, and Mar. 5, 1840, there are *two* "cards."

Herald and Gazette, Sept. 18, 1839.

Drs. Bennett and Hervey, Dentists, from the City of New York, would respectfully announce to the Ladies and Gentlemen of Cleveland and vicinity that they have taken rooms at the American House. They will attend to all calls in their profession either at their rooms, or at private houses as may be convenient. Drs. B. and H. having had several years practice consider themselves fully competent to perform any operations in Mechanical or Surgical Dentistry. Artificial teeth inserted from one to an entire set so as not to be distinguished from those formed by nature, even by the closest observer. Particular attention given to plugging, cleaning and extracting carious teeth. Wm. C. Bennett, Chas. P. Hervey. References, Prof. H. A. Ackley, M. D., M. L. Hewitt, M. D., S. Starkweather, Esq., Rev. Levi Tucker, Alexander Sackett, Wm. Sutton.

Herald and Gazette, Nov. 27, 1839.

Tooth Powder and Tooth Brushes.—A Superior article of Tooth Powder for cleansing, preserving and beautifying the Teeth and Gums, for sale at the Bazaar. Same "ad" Jan. 6, 1840.

Herald and Gazette, Dec. 4, 1839.

Toothache, Toothache, Toothache.

Wm. Brown, chemist, 481 Washington St., Boston, has invented an article that will remove this tormenting pain, also takes away all unpleasant smell of the breath, and causes the decayed part of the tooth to be as white as the outside and fits them to be filled. Hundreds of gross have been sold in the last three years and many a comfortable nights rest, which otherwise would have been spent in misery. It does not injure the teeth like many articles now in use. It is considered by our dentists the best article now in use prepared. For sale in Cleveland. Druggists supplied by Messrs. Henshaw, Ward & Co., Boston. Same "ad" in Daily Herald, Mar., Apr., May, June, 1840.

Daily Herald, Jan. 8, 1840.

Dr. B. Strickland, Surgeon Dentist, and manufacturer of Incorruptible Teeth, 197 Superior St., between Seneca St. and the Public Square. Same "ad" throughout the year.

Herald and Gazette, Nov. 25, 1840.

Dental Surgery.—Dr. Wright has located in the city of Cleveland and opened an office over the store of Messrs. Handerson and Punderson, where he is prepared to perform all operations connected with Dentistry in a correct and scientific manner. He has numerous testimonials among which is the following from H. A. Ackley, M. D.: I have been acquainted with Dr. M. L. Wright, Surgeon and Dentist for six years, during which time I have had numerous opportunities of observing his treatment and operations on diseased teeth which have uniformly been successful. I most cheerfully recommend him to the public as well versed both in the theoretical and practical parts of his profession, and in all particulars a skillful and judicious Dentist. Nov. 1, 1840, H. A. Ackley.

Charges will be reasonable and all operations performed to the entire satisfaction of his Patrons. He may be consulted at his office, or at his residence on St. Clair St., Dr. W. very respectfully solicits a share of patronage. Same "ad" in Dec. and Jan., Feb. 1841, Jan. 1842.

Herald, Jan. 19, 1841.

Artificial Teeth.—Dr. Strickland has just received from the best manufactories in the world a great variety of teeth so perfect in form and color that they cannot be distinguished from natural teeth, which he will warrant never to decay or change color. Dr. S. is prepared to insert these teeth so that they may be worn without clasps, springs or pivots. Also in every manner in which artificial teeth are inserted. All operations for the preservation of natural teeth carefully performed on terms corresponding with the time, at his old office nearly opposite the Temperance House.

Herald, Feb. 5, 1841.

Dr. B. Strickland, Surgeon Dentist and manufacturer of Incorruptible Teeth, 107 Superior St., between Seneca St. and the Public Square, same "ad" through most of Mar., Apr., Ma., June and all of 1842-3-4.

Herald, Jan. 28, 1842.

Premium Teeth.—A great quantity of Premium Incorruptible Teeth, as natural as life, just received will be inserted to the perfect satisfaction of all applicants, or sold at wholesale to Dentists, by B. Strickland, Surgeon Dentist, Superior St. Same "ad" practically through rest of the year, and most of 1843-4-5-6.

Plain Dealer, Jan. 26, 1842.

Dr. Strickland, dentist, and agent for the sale of Incorruptible Teeth, Gold and Tin Foil, Instruments and all articles used by Dentists, No. 109 Superior St. Same "ad," rest of the year.

Herald, Feb., Mar., Apr., Ma., 1842.

Teeth, Teeth, Teeth.—Stockton's Incorruptible Teeth for sale by Stieckland, Gaylord & Co., Agents.

Herald, May 7, 1842.

Dr. Wright Dental Surgeon, can be consulted at all hours at his office on Superior St., opposite the Commercial Bank. Having recently had occasion to employ Dr. Wright, of Cleveland, Dentist, to perform some work of peculiar difficulty in his line I feel it due to him to state that his execution of the work has far surpassed my most favorable anticipations, and that

the decided proof thus made of his skill in the business of dentistry, together with information derived from sources of credit, have fully satisfied that he may unreservedly confided in by any who may have occasion for his services. Given at Willoughby, Feb. 17, 1842.

JOHN DELAMATER.

Dr. Wright—Dear Sir: I fully concur in the sentiments expressed in the above letter from my colleague Prof. Delamater addressed to you. Yours with much respect, J. Lang Cassels, Willoughby, Feb. 25, 1842.

N. B.—Instruments of every description used by Surgeons, Dentists or Physicians kept constantly on hand. Same “ad” part of Ma., June.

Herald, May 24, 1842.

Preservation of the Teeth.—The most experienced members of the American Society of Dental Surgeons (including principal Literary Dentists in Europe and America) believe that it is easy to preserve the natural teeth perfect and healthy from youth to extreme old age, by using proper remedies and avoiding all others. For the purpose of diffusing correct information on various subjects relating to the teeth and enabling the public to guard against quackery and imposition, the Society are publishing ten or twelve popular essays, which are received as fast as published by Dr. Strickland, fellow of said society, for the benefit of his friends.

N. B.—Recent improvements in dental surgery promptly received through the above society from all parts of the Globe and applied to practice at 109 Superior St., opposite the Temperance House. Same “ad” in Ma., June, Sept.

Herald, May 30, 1842.

Cure for the Toothache.—The Celebrated Muscovitus Drops, warranted to cure the most inveterate toothache in two minutes. This article will also preserve the decayed teeth for the future, remove all the scurvy and tartar without the use of an instrument. The discoverer and proprietor of the above invaluable cure for the toothache, informs the public that he has the exclusive right in his discovery, by application in due form of law at the Patent office of the U. S. and is now ready to dispose of said Patent Rights, for the District of Columbia, or any

county, State or Territory in the Union. Dr. S. M. DeHefty, who can be found at the Mansion House.

Herald, Sept. 8, 1842.

Dentist.—D. M. Heart (from Philadelphia) Surgeon Dentist, will attend to all operations in Dental Surgery, such as Cleansing, Plugging, Extracting and inserting Incorruptible Teeth from one to a full set. He operates after the manner of the Mechanics of Paris, being furnished with Platena Composition Blocking (a new article) a soft article but becomes hard in two hours after inserting. Any person not being satisfied will not be compelled to pay. Terms.—For cleansing a whole set of teeth, \$1.00. For plugging a tooth with gold, \$1.00. Composition, \$1.00. Silver foil, 50 cents. Inserting a tooth with pivot, \$3.00. In Gold Plate, \$5.00.

N. B.—The toothache cured in five minutes (without extracting) free of charge. Office at Cleveland Temperance House.

Ladies or Gentlemen can be waited on at their residence both in country and town, at the same rates charged at his office. If the public give him satisfaction he will make this his place of residence. Same "ad" Sept. 13, 15.

Herald, Oct. 28, 1842.

A Card.—Dr. Strickland, member of the American Society of Dental Surgeons, acknowledges with gratitude the numerous manifestations of the confidence and esteem of his fellow citizens evinced in the liberal patronage that has been extended to him during a residence of seven years. Dr. S. having adopted in his practice all recent improvements is now able to offer to his friends all the benefits which his favorite art can bestow—such as destroying the nerves in aching teeth without pain, filling the most sensitive teeth without pain, inserting teeth without pain, inserting teeth with artificial gums so they will not appear longer than natural teeth, etc. Reference.—His diploma received from the American Society of Dental Surgeons.

N. B.—Charges made to correspond with the times. Office, Superior St., opposite the Temperance House. Same "ad" in Dec. and 1843, Jan., Mar., Aug., Sept., 1844, Jan., Feb., Mar., Apr.

Weekly Plain Dealer, July 12, 1843.

N. T. Cody, Dentist, Rooms in Champlain St., near Ontario. Dr. C. will perform operations on the teeth in the best manner and on the most reasonable terms. Same "ad" rest of the year, and Jan., 1844.

Weekly Plain Dealer, Apr., 24, 1843.

Take care of your Teeth.—J. D. Howe, most respectfully informs the Ladies and Gentlemen of Cleveland and vicinity that he is now prepared to perform all operations pertaining to the Dental Art. Dr. H. has taken rooms on Bank St., second door from the Banking House, where he will wait upon all those who wish to avail themselves of that opportunity. Ladies will be waited on at their dwellings. All operations pertaining to the Dental Art done on the neatest and most approved principle. Prices to correspond with the times.

Herald, Aug. 28, 1843.

Dental Surgeons.—Drs. Wright and Carter have connected themselves for a term of years and will practice their Profession in all its branches, according to the most approved plan, and to the satisfaction of their patrons. Charges will be moderate. Office over the Post Office.

N. B.—At this office full double sets of Teeth have been successfully placed so as to answer well the purposes of mastication. Price for double set on gold from \$100 to \$125. All operations of this sort, as well as those of less importance, will be warranted to answer the purposes recommended at the time of application. Office open 6 A. M. to 9 P. M.

Herald, Mar. 3, 1844.

Maury's Dental Surgery, Bell on the Teeth, M. C. Younglove Bookseller, American House. First time the writer has seen a dental book "ad" here.

Herald, Apr. 27, 1844.

Dr. Wright, Dentist, has removed his office and residence to 76 Superior St., opposite the Commercial Buildings, where every operation connected with Dental Surgery will be performed with as little pain as possible, and in all respects satisfactory to the patient. Charges as reasonable as anyone in the country who understands his profession. Same "ad" Ma., Ju.,

July, Aug., Sept., "ad" June 26 has a picture of an upper and under set of teeth, with spiral springs, fitted into the mouth.

First time the writer has seen an "ad" here accompanied with a picture.

Dr. Wright's "card" appears in the Herald, 1844, Aug., Sept., Oct., Nov., Dec., 1845, all the year. Wright & Hamlen's "card" 1845, Nov. 11 and rest of the year. Dr. Strickland's "card" appears in the Herald 1844, Aug., Sept., Oct., Nov., Dec., 1845, all the year.

Weekly Plain Dealer, July 2, 1844.

Dr. Wright, Surgeon Dentist, will insert full double sets of Artificial Teeth so as to answer well the purposes of natural Teeth, also Artificial Palates and Roofs to the Mouth so that articulation, etc., can be performed with correctness and ease. Charges moderate and operations of this kind warranted successful or no charge. Office, 76 Superior St., Same "ad" Aug., Sept., Oct., Dec.

Herald, Sept. 21, 1844.

Surgeons' Physicians' and Dentists' Instruments of every variety on hand and for sale by Dr. Wright, Dentist, 76 Superior St., Arrangements have been made with Peter Rose, the manufacturer, so that any new pattern may be had on short notice. Also old instruments carefully repaired. All orders from a distance attended to promptly. All useful operations connected with Dental Surgery attended to as usual, and for a reasonable compensation. This "ad" is accompanied with a picture showing a lancet, bistoury, trephine and turnkey. First "ad" of the kind the writer has seen here.

Herald, Nov. 13, 1844.

B. B. Hastings, Jeweler. Teeth Brushes, same "ad" Dec., 1845, Jan.

Herald, Dec. 17, 1844.

Teeth.—Stockton's Incorruptible Teeth. Also Tin and Gold Foil for Dentists, for sale by H. & E. Gaylord. Same "ad" Jan. 4, 1845.

Herald, Feb. 5, 1845.

W. Bailey, Surgical and Mechanical Dentist, attends to all operations connected with his profession at No. 115 Superior St., opposite the Temperance House. Same "ad" runs rest of the year, and Jan., Feb., Mar., Apr., 1846.

Herald, Mar. 4, 1845.

Allebasis Toothache Drops, 25 cents act like a charm. H. & E. Gaylord. Same "ad" rest of the year.

Herald, Mar. 26, 1845.

Tooth Forceps, Tooth Keys. Mackensie & Haskell. Sign of the Arch, Phoenix Buildings.

Herald, Apr. 22, 1845.

For the Teeth.—Dr. Ware's Tooth Powder, German Denti-frice, Rose Tooth Paste, Tooth Brushes assorted, Anti-Scorbutic Tooth Powder, Chlorine and Orris Tooth Wash an elegant preparation for the Teeth, Mouth and Gums, removing the smell and taste of Tobacco, etc., for sale by Handerson & Punderson.

Herald, Oct. 27, 1845.

W. Bailey, Surgical and Mechanical Dentist, attends to all operations connected with his profession, over Sackett's Drug Store, three doors west of the square. Double Sets of Teeth inserted by Cylinder attachments. In introducing this method to the notice of those requiring full sets. W. B. has full confidence in saying the improvement combines many important advantages over any arrangement of springs. All irritation consequent upon the spring's friction against the muscles in their vicinity, heretofore a source of much trouble, is by this method entirely avoided, the set is made more durable and less complicated, and is worn with every desirable ease and comfort, ample proofs of which have been made by him in his recent practice. Any minor sets inserted and teeth filled in the best manner, specimens of the Artificial pieces can be seen at his rooms as above. (Picture of a man with a bandage over his head and jaw, and his hand up to his mouth). Same, 1846, Jan., Feb., Mar., Apr. Same "ad" Weekly Times, Oct., Nov., Dec., and Jan., Feb., Mar., 1846.

Herald, Nov. 11, 1845.

Drs. Wright and Hamlen, Surgical and Mechanical Dentists, have formed a co-partnership, and will perform all useful operations in the best manner and at reasonable terms. Surgeons' and Dentists' Instruments for sale unusually cheap. Office, 94 Superior St. (Pictures of lancet, bistoury, turnkey, trephine). Same, Jan., 1846.

Herald, Dec. 20, 1845.

A few cases of Dental Instruments, also pocket cases, Scari-fiers, Spring and Thumb Lancets. Handerson & Punderson. (Same Jan., 1846).

Herald, Jan. 2, 1846.

Drs. Wright & Hamlen (name and address), Jan. 2 until Nov., 29, when they dissolved partnership, then Wright and White begins Mar., 22, 1847 and runs rest of year.

Herald, Jan. 2, 1846.

B. Strickland, Surgeon Dentist and Manufacturer of In-corrutable Teeth, 107 Superior St. Same "ad" rest of the year and through 1847.

Herald, Jan. 14, 1846.

A supply of Turnkeys with Clark and Fox's spring-bolt, Ivory and Ebony Handles, also Tooth Hooks, Forceps, Gum Lancets, etc. Handerson & Punderson.

Herald, Jan. 17, 1846.

William E. Rose, Cutler and manufacturer of Surgical and Dental Instruments. Merchants' Exchange, Superior St. W. E. R. would respectfully inform the citizens of Cleveland and vicinity, and also the Medical and Dental professions that he has opened an establishment for the manufacturing and repairing of Surgical and Dental Instruments and Cutlery. Instruments for Club-Feet, Diseases of the Spine, Wry Neck, etc., made to order. Particular attention paid to repairing Razors, Shears, Knives, Scissors, etc. Same "ad" Jan., Feb., Mar., Apr. and the picture with it is the same as the one used by Wright and Hamlen, Dentists.

Herald, Mar. 28, 1846.

Singing School.—F. S. Slosson will commence another course of Primary Instruction in Vocal Music at the Lecture Room of the Stone Church on Monday, the 16th inst. at 7 o'clock P. M. Will also give instruction to an advanced class at that place commencing on Tuesday the 17th inst. at 7 o'clock P. M., to which persons who have received instruction in the first principles of Music, will be admitted. Those wishing instruction in either class, are invited to attend at the commencement. Terms, 12 lessons, one evening in a week, \$1. Same "ad" Mar. 16, 17, 23.

Herald, Apr. 25, 1846.

F. S. Slosson, Surgical and Mechanical Dentist, will perform all operations connected with his profession, in the most approved style of eastern cities. Full sets of Teeth inserted on double or single plate by atmospheric pressure, or by cylinder attachment, which secures against the irritation often experienced with the usual method of attaching springs. Minor sets inserted, and teeth filled in the best manner. Office, No. 115 Superior St., 3 doors west of the Public Square. Same, May, June, Ju., Aug., Sept., Oct. to Nov. 3, when he took James C. Aiken as a partner, and their card runs until Apr. 26, 1847, after this and for rest of the year, only F. S. Slosson.

F. S. Slosson's "ad" has a picture of six front teeth on a narrow gold plate with a clasp at each end, and a hole, behind each central incisor, containing a ligature. Same June, July, Aug.

Herald, May 16, 1846.

Drs. Wright and Hamlen, Surgical and Mechanical Dentists, are prepared to furnish with promptness and despatch anything in the line of Dental Surgery, from a Toothpick up to a full set of Mineral Teeth mounted on Gold Plate, in the latest and most approved styles of the Old and New World, and on reasonable terms. Office, 95 Superior St., up stairs, with this is a picture of an upper and under set of teeth fastened with springs, and on each side of this picture, is a picture of a molar tooth. Same "ad" June, July, Aug., Sept., Oct.

Herald, Sept. 4, 1846.

Dentists' Burrs, Drills, and Excavators. A good supply of W. E. Rose's manufacture always on hand at Wm. Fiske, Drug-gist, 11 Superior St.

Herald, Nov. 3, 1846.

F. S. Slosson and J. C. Aiken, Surgical and Mechanical Dentists will perform all operations connected with their profession in the most approved style of eastern cities. Full sets of teeth inserted on double or single plate by atmospheric pressure, or by cylinder attachment, which secures against the irritation often experienced in the usual method of attaching springs. Minor sets inserted, and teeth with exposed nerves pre-

pared and filled in the best manner without pain. Irregularities of the teeth attended to with care. Office, 135 Superior St., 3 doors west of the square.

Herald, Nov. 27, 1846.

Dr. Wright Surgeon Dentist, No. 94 Superior St. Will receive calls at all hours day or night, and perform all useful operations with as little pain and on as reasonable terms as any one who understands the profession. Teeth in double or single sets on Gold or Silver, by single, double or triple atmospheric pressure, or any number of teeth the case may require, inserted in a manner not to be surpassed by any one East or West, all operations warranted to answer the purposes recommended at the time. The connection heretofore existing between M. L. Wright and S. L. Hamlen is by mutual consent dissolved.

N. B.—Anyone wishing to have teeth plugged with exposed nerves, who will call on him can be accommodated provided he cannot satisfy them of the unutility of the operation. Same "ad" Dec., Jan., Feb., Mar., 1847, and Plain Dealer, Jan. 12, 1847.

Herald, Dec. 4, 1846.

Dentists supplied with Stockton's Plate, Pivot and Gum Teeth, and Gold and Tin Foils of superior quality. H. & E. Gaylord. Same "ad" Jan., 1847. Similar "ad" Aug. 1, 1848.

Plain Dealer, Jan. 5, 1847.

Hunt's Liniment cures Neuralgia and Toothache.

Herald, Jan. 30, 1847.

Great Discovery.—Inhalation of Sulphuric Aether. Dr. M. L. Wright would announce to the public that he has discovered that the inhalation of Sulphuric Aether will render the human system insensible to pain; so that surgical operations can be performed without the usual suffering of the patient. The inhaling process is not attended with any danger or much inconvenience to the individual using it, if administered judiciously, or by one acquainted with medical science and practice. The use of this agent is particularly serviceable in the extraction of teeth, as the subscribers patients can testify. The public are invited to call and test the reliability of this discovery at 64 Superior St., where as usual, all useful dental operations are performed. Same "ad" Feb. and Plain Dealer, Feb. 9, 1847.

Herald, Jan. 30, 1847.

No Pain.—Morton's Letheon, under the influence of which hundreds have had teeth extracted and other painful operations performed without suffering pain, is received by Dr. Strickland. Feb. 5. Those who doubt the efficacy or safety of the Letheon, originally invented by Dr. Morton of Boston, and now used by Dr. Strickland, are referred to Dr. Terry.

Herald, Feb. 11, 1847.

To Medical Students.—The undersigned offers to Medical Students a variety of Surgical Instruments. Such as Pocket and Dissecting Cases, Teeth Extractors, Dental Cases, Lancets, Injecting apparatus, etc., very cheap for cash. Handerson & Punderson.

Herald, Mar. 5, 1847.

Dentistry.—Wright and White.—Dr. Wright has associated with himself D. C. White for the purpose of practicing Dental Surgery at the old stand, 94 Superior St., where all operations connected with dentistry will be performed in the best possible manner, and on reasonable terms.

N. B.—We continue to extract teeth for those who desire it without pain by administering Sulphuric Aether, vulgarly called "Morton's Letheon." M. L. Wright, M. D., D. C. White. Same "ad" Apr., May, June, July, Aug., Sept., Oct., Nov., Dec., Jan. 3, 1848, has a picture of an upper denture. Their "card" appears all the year 1848 and Jan., Feb., Mar., Apr., 1850.

Herald, Oct. 26, 1847.

I have returned to my old stand 11 Superior St., where I shall be happy to see my friends and all who wish to purchase Drugs, Groceries, Oils, Dental Instruments, Stockton's Teeth, Gold and Tin Foil, etc. Wm. Fiske, Sign of the Gold Mortar.

Weekly Plain Dealer, Oct. 20, 1847.

Gold and Tin Foil, Dentists' Instruments. Wm. Fiske. No. 11 Superior St., same Dec. Similar "ad" 1848 Jan., Feb., Mar., Apr., May, June, July, Aug., in Plain Dealer.

Herald, Nov. 16, 1847.

Harris' Dental Surgery. A new edition revised modified and greatly enlarged, with 156 illustrations for sale by M. C. Younglove.

Herald, Jan. 3, 1848.

F. S. Slosson, Surgical and Mechanical Dentist, will perform all operations connected with his profession in the most approved style of eastern cities. Full sets of Teeth inserted on double or single plate by atmospheric pressure, or by cylinder attachment which secures against the irritation often experienced in the usual method of attaching springs. Minor sets inserted and teeth with exposed nerves prepared and filled in the best manner without pain. Irregularities of the teeth attended to with care. Office, 135 Superior St. Same May 15 shows picture of upper denture. "Ad" runs Oct., Nov., Dec., 1849, during the year; 1850 during the year, with office, Superior St., corner Public Square. 1851, Jan., Feb., Mar., Apr., May, June. 1852, for the year. 1853-4-5, practically all the time.

Herald, Jan. 3, 1848.

\$10 Reward.—I will give ten dollars for such information as shall lead to the conviction of the person or persons who pulled out and carried away my Silver Plated Bell Handle, from my office door, about two weeks since, during my absence from home. B. Strickland.

Herald, Jan. 23, 1848.

Dr. P. A. Westervelt, Mesmeric and Electro-Magnetic Physician, late of Pittsburg, informs the people of Cleveland he can cure Rheumatism, Gout, Deafness, Neuralgia, *Toothache* and *everything* else. Same Apr. May.

Plain Dealer, Mar. 14, 1848.

A Fine Set of Teeth for 25 cents. White Teeth, Foul Breath and Healthy Gums, Yellow and Unhealthy Teeth, after using once or twice cleaned with Jones' Amber Tooth Paste have the appearance of the most beautiful ivory, and at the same time it is so perfectly innocent and exquisitely fine. Those already decayed, it prevents from decaying more—it fastens those which are loose. Handerson and Punderson. Same Apr., May.

Herald, July 10, 1848.

Dental Depot.—A large stock of Stockton's Best Teeth, Abbey's Foils, Stockton's Foils, Stubbs' Files, Forceps of the most approved patterns and manufacture—and in short—all articles

used by the profession, constantly kept on hand at Fiske's Drug Store. Think this is first time the term Dental Depot was used here .

Herald, Aug. 7, 1848.

To the Public.—M. L. Wright, M. D., takes great pleasure in informing his patrons and the community generally, that he has discovered a combination for "Artificial Gums" free from the objections of the *old plan* of gum teeth in blocks which is now universally exploded by our oldest and best Dentists in this country and Europe for good reasons. It is also free from the objections of Gum Teeth placed singly on a plate. The above article can be used in all cases where Gum teeth are required, making a fit so perfect as to prevent the lodgement of any foreign matter; he has also on hand, and will use when advisable, Hill's Stopping which bids fair to supersede all plastic fillings. Office, 94 Superior St., "Ad" has picture of upper denture.

Herald, Dec. 20, 1848.

A. D. Bigelow, Dentist, would respectfully inform the citizens of Cleveland and vicinity, that he has opened an office on Superior St., No. 113, where he is prepared to perform all operations for the preservation, beautifying and supplying lost Teeth, from one to whole sets in the very *best* manner. Satisfactory reference can be given. "Ad" has picture of upper denture, and runs all Jan., 1849.

Herald, Dec. 27, 1848.

A Rare Chance for Dentists.—For Sale—on reasonable terms, a complete and beautiful case of Dental Instruments, containing different sets of improved Forceps, Fillers, Scalers, Drills, Excavators, Teeth, Foil, etc. Also a self-regulating Lamp for soldering, melting casts, etc. The case contains everything necessary for a dental operator. The Instruments can be seen at No. 1, up stairs, Seneca Block.

Herald, Jan. 9, 1849.

Robinson and Ingersoll, Dentists, would respectfully inform the citizens of Cleveland and vicinity that they have opened an office and are prepared to perform all operations for the preservation of the Teeth in the best possible manner. In addition to the ordinary operations of Dentistry they manu-

facture Mineral Teeth in blocks, with artificial gums, and are thereby enabled to supply any deficiency, however difficult, from a single tooth to a full set, which they could not do were they under the necessity of purchasing their teeth. Ladies and Gentlemen respectfully invited to call and examine the Specimens of Teeth. Also those who wish will be referred to individuals in this city and elsewhere who have tested their work for years, 79 Superior St., over Watsons. Wm. B. Ingersoll, B. F. Robinson. Same, Jan., Feb., Mar., Apr., May, June, July.

Fiske and Hall, Druggists. Dental Forceps, Scalers, Plug-gers, Excavators, Teeth and Foils. Sign of the Golden Mortar. Same Mar., Apr., May.

Herald, May 16, 1849.

Important Discovery in Dentistry.—To Dentists and those wishing Artificial Teeth. M. L. Wright, M. D., has purchased the entire right to use plate and vend Dr. Levett's Patent Enameled Plates, which patent is secured by caveat in the secret archives of the Patent Office. From numerous recommendations contained in a circular put forth by the inventor we take the following: from Prof. James R. Chilton, "I have knowledge of the composition of Dr. Levett's Patent colored Enamel for covering the surface of Gold or other metal plates to be worn in the mouth, and can recommend it to the attention of those interested, both for its beauty and durability. James R. Chilton, M. D.

New York, Oct. 20, 1848.

Having seen the enamel patented by Dr. Levett for the metal plates, clasps and springs used in dentistry for securing teeth, etc. I very cheerfully certify to the satisfaction it has afforded me, and the great merit which this agreeable and beautiful improvement possesses. Isaac Greenwood, Retired Dentist, No. 81 Murray Street.

New York, Jan. 4, 1849.

The undersigned after twelve months test of the new Patent Enamel of Dr. Levett of No. 260 Broadway, New York, has no hesitation in giving publicity to his entire satisfaction as to its results both as regards purity of taste, comfort and general effect produced by this admirable and truly valuable discovery. D. Symons, 221 Mercer St.

Hartford, Courant, Oct. 12, 1848.

The great discovery of the Celebrated Dr. Levett. The improvement conceals all appearance of the metal about the artificial teeth, which is sometimes unsightly. The metal portions are delicately concealed by a patent enamel of a natural color, which not only gives a beautiful finish to the teeth, but entirely removes that unpleasant and sometimes unwholesome metallic taste which the metal imparts. This invention excites a good deal of interest, and no lady or gentleman after testing it will consent to have their mouths disfigured in the old style. Specimens may be seen at my office, No. 94 Superior St., where I at all times will be glad to enamel old or new jobs on reasonable terms. I will sell for this county a few Office Licenses. Same, June, July, Sept., Oct., Nov., Dec. 1850, Jan., Feb. Picture of upper denture, horseshoe form, Mar., Apr. His "card" appears for rest of year and for Jan., Feb., Mar., 1851.

Herald, Aug. 23, 1849.

B. F. Robinson, Surgeon Dentist and Manufacturer of Mineral Teeth, has taken rooms in the building on the corner of Superior and Bank Streets, and is prepared to perform all operations for the preservation of the natural, or insertion of artificial teeth in the best possible manner. Picture of upper denture, horse-shoe form Sept., 1850, for the year, 1851, for first six months.

Plain Dealer, Nov. 27, 1849.

A. D. Bigelow, Dentist, has removed his office to the corner of Superior and Bank Streets, where he will be permanently located, and is prepared to perform all operations in Dentistry in the very latest and most approved manner. (Picture of upper denture, horseshoe form).

Herald, Mar. 6, 1850.

Benjamin Pearce, Surgeon Dentist, office with Dr. F. S. Slosson, corner Superior St. and Public Square. Same, practically rest of year. 1851, Jan., Feb., Mar.

Herald, Nov. 21, 1850.

Cloth, Tooth and Horse Brushes—A. M. Beebe. Tooth Nail and Hair Brushes, Cowles & Albertson.

Herald, Nov. 25, 1850.

Dental Instruments, Gold and Silver Plate, Gold and Tin Foil, Stone and Emery Wheels, Teeth and many other articles useful to the profession. Fiske and Hall. (Same Dec. 1851, May, June. 1852, Jan., has picture of forceps and blow-pipe).

Herald, Dec. 24, 1850.

Dentists' and Surgeons' Instruments, Teeth, Gold and Tin Foil, a large assortment. H. & E. Gaylord. (Same, Feb., Apr., 1851.

Herald, Jan. 8, 1852.

Important Improvement in Artificial Teeth. Dr. Strickland having obtained the exclusive right to use Dr. Allen's improved mode of setting teeth upon metallic plates, in the county of Cuyahoga, is now prepared to insert teeth in a style believed to be far superior to any before known. The advantages claimed for this new invention are: great strength, improved appearance, perfect cleanliness and the absence of impure solder. The teeth are secured to the plate by a strong cement which forms a very perfect and durable imitation of the gum, and prevents fluids from entering between the plate and the teeth. Teeth made with this improvement are as free from unpleasant taste as healthy natural teeth. Those in want of teeth are invited to see specimens at the rooms, 125 Superior St. (Picture of upper denture horse-shoe form rest of year, and most of 1853).

Herald, Jan. 8, 1852.

B. F. Robinson, Dentist, is happy to inform his friends and the public that he has recently associated with him, Dr. N. H. Ambler, late of Burlington, Vt. Dr. Ambler has had ten years experience in the profession and the public are assured that all operations performed by him will be done in the most substantial manner. We are in possession of all the important improvements in the dental art, and are now prepared to perform all operations for the preservation for the natural or insertion of artificial teeth in a manner that for beauty or finish and substantial workmanship cannot be equaled in the state of Ohio. In addition to the ordinary operations of dentistry, we manufacture Mineral Teeth, a department of dentistry known to but three or four in Northern Ohio, two of whom have learned the

art of a member of this firm. Having experimented with much labor in the manufacture of teeth, we have succeeded by a new combination of material in getting rid of the glassy or artificial look so common to porcelain teeth, and have brought them to that state of perfection that they cannot be detected from the natural ones, individuals wishing whole or parts of sets are respectfully invited to call and examine specimens. Office Merchants' Bank Building, corner Superior and Bank streets. (Same rest of year, with picture of upper denture horse-shoe form, 1853 first five months and Plain Dealer, Apr., May, June, July, 1852).

Herald, Aug. 19, 1852.

H. H. Raymond's Medallion Tooth Wash. For Whitening the Teeth, sweetening the breath, hardening the gums, Cleansing the mouth from all unpleasant taste. C. W. Amburger & Co. Sole Agents 25 John St., N. Y., (Same Nov.)

Herald, Apr. 20, 1852.

Among premiums offered at the Ohio State Fair, held here in Sept., was a silver medal for the best set of Dental Instruments. Awarding com., Dr. R. Thompson, Columbus; Isaac Sams, Highland Co.; N. E. Crittenden, Cleveland.

Herald, Nov. 15, 1852.

Dr. I. Lukens, Surgeon Dentist, late of the city of Philadelphia, respectfully informs his friends and the citizens of Cleveland and vicinity that he has located himself at No. 9, Ontario St., South of Euclid, where he may be found ready to serve those favoring him in his line of Business in which his past experience he thinks will guarantee satisfaction. (Same Dec. with picture of upper denture horse-shoe form, 1853 all the year).

Herald, Dec. 2, 1852.

H. P. Burdick, a practical Dentist of many years experience is located at 74 Prospect St., where he will attend to calls in his profession. Cavities filled with Tin Foil, 25 cents each; Gold Foil, 50 cents to \$3 each. Teeth set on Pivots, \$2. Extracting with the latest improved Forceps and in the safest manner, 25 cents. A sample set of teeth on Gold Plate can be seen and examined. Constantly on hand a Tooth Wash

which neutralizes the acids of the Mouth, hardens the Gums, thus giving a polish to the Teeth and sweetness to the breath. (Same Jan., Feb., Mar., 1853, with picture of upper denture horse-shoe form).

Herald, Dec. 3, 1853.

Bain and Brinekerhoff, Surgical and Dental Instruments, No. 7, Platt St., N. Y.

Herald, Feb. 22, 1854.

J. Davis, Dentist, No. 1, Mathew's Block, South side Public Square, opposite the Court House. References, Profs. J. & J. J. Delamater. (Same Mar., Oct., Nov., Dec., with picture of upper denture horse-shoe form).

Herald, Oct. 2, 1854.

Dr. B. F. Robinson in returning thanks to his friends and patrons in Cleveland and vicinity for the liberal patronage he has received during his residence in this city would give notice that he has recently associated with him, his brother Dr. J. A. Robinson, from Mass., a Dentist of skill and ability, and Dr. B. T. Spelman, of Ravenna, well known as a successful operator in Portage Co., and have taken the name of Robinson Spelman and Robinson. Having established a manufactory of mineral teeth in connection with their Dental Establishment they feel sure they can give a more natural appearance to artificial work than has ever been exhibited in Cleveland or Ohio. Particular attention paid to plugging carious teeth, so as to render them permanent and useful for many years. Also all irregularities in children's teeth made perfect so that every child can be sure of a beautiful and even set of teeth. Office in Northrop and Spangler's Block, corner Superior and Seneca streets. (Same Nov., Dec.)

Herald, Jan. 11, 1855.

Dr. N. H. Ambler, Dentist, formerly of the firm of Robinson and Ambler, has opened an office for the practice of Dentistry in all its branches in the rooms recently occupied by Robinson Spelman and Robinson, corner Superior and Seneca Streets. (Same, rest of year, with "cut" of upper denture horse-shoe form).

Herald, Feb. 18, 1855.

Williams and Buffett, Dealers in Groceries, Provisions, Willow and Wooden Ware, etc., 113 Superior St. Packages delivered free of charge. (Later Charles Buffett practiced dentistry here).

Herald, Apr., 24, 1855.

Improvement in Dentistry. A manufactory for providing entire sets of artificial teeth after Dr. Loomis' improved method is now established in this city. By this plan a set is composed of but one piece of material—the teeth and plate are all the same. The superiority of this method is very apparent. Those interested are invited to call at Loomis and Wright's office, 190 Lake St., where specimens may be examined. ("Cut" of upper denture horse-shoe form).

On May 1, 1855, there is added to the above: To the Public—I have for the last year watched and examined with care Dr. Loomis' new mode of making and setting artificial teeth. The teeth and plate all being connected and of the same material. Having as Surgeon been (from necessity) obliged to know much of the previous modes of making and setting teeth, I do not hesitate to state that this invention of Dr. L.'s is far superior to any other plan, and that his invention will soon be considered as one of the greatest professional improvements of the age. This statement is made after a long and careful investigation of the matter, and observing its practical utility. Given at Cleveland Medical College, Apr. 23, 1855, H. A. Ackley, M. D., Prof. Surgery. I have examined quite a number of the entire set of teeth, together with gum and roof of the mouth, being one solid piece of porcelain, the whole being beautifully enameled with their appropriate colors. The teeth are worn with great comfort, there being no cavities for the lodgement of particles of food, as there always must be in the old method of gold plate setting, however well it may be executed. Among the many advantages are cheapness, durability, cleanliness and utility in masticating food. Dr. M. Loomis, it will be recollected, a student of Dr. Wright in 1848, and after laboring hard to bring his improvement to perfection, obtaining letters patent, both in this country and Europe, remembered

his old friend and preceptor, and gives him an opportunity to share with him in the west. T. GARLICK, M. D.

(Same with "cut" of upper denture horse-shoe form, most of June, July, Oct., Nov., Dec., and most of 1856, and Jan., Feb., Mar., Apr., 1857).

Herald, June, 1855.

Duman and Halliwell, Dental Rooms in Mathews Block, opposite Court House. E. Duman, Surgeon Dentist. A. B. Halliwell, M. D., Surgeon Dentist. (Same July, Sept., Oct., with "cut" of an upper denture of natural teeth. Think it is first time cut of natural teeth has appeared here.

Herald, July 16, 1855.

Dentists' Goods.—Teeth Plate and Foils, and a complete stock of Dental Instruments, Bench Tools, etc., for sale by W. Fiske.

Herald, Oct. 2, 1855.

D. P. Kayner, M. D., Surgeon and Dentist, lately from the east, is prepared to give his personal attention to all operations in Surgery or Dentistry at his residence, No. 80 Erie St., near the Lake. Charges reasonable—Terms ready pay. (Same in Nov).

Herald, Jan. 2, 1856.

Dr. J. Allen late Professor in the Ohio College Dental Surgery invites attention to his improved method of constructing Artificial Dentures which contains the following advantages: There are no seams or crevices for the lodgement of food. An artificial gum which is as firm and indestructible as the teeth is fused at a high heat between and around their base. Great strength is thus obtained by uniting gum, teeth and plate. A clear and distinct articulation of speech is restored. The natural form and expression of the mouth and face can be restored in cases where they have become sunken. The plates usually employed for this work are platina, the purity of which prevents even the slightest tarnish or unpleasant taste in the mouth. With reference to the utility of this method, numerous testimonials can be given from eminent Dentists in the various parts of the Union. Dr. Allen has arrangements by which he is enabled to serve persons from a distance immediately on ar-

rival, thereby saving expense. J. Allen, No. 30 Bond St., N. Y.

P. S.—Persons desiring further information will be furnished with a pamphlet free of postage by sending a note with address to Dr. Allen.

Plain Dealer, Feb. 16, 1856.

M. L. Wright, M. D., continues to practice his profession at 190 Lake St. Particular attention will be paid to the teeth and gums, etc. He will also devote part of his time to the general practice of medicine. Hours 7½ A. M. to 12 M., and 2 to 5 P. M. (Same Mar., Apr., May.)

Herald, Mar. 6, 1856.

Dentistry.—The Public are invited to examine specimens of a new and useful improvement in preparing Artificial Teeth which for the following reasons are considered superior to any now in use. They will bear more hard use in the mouth, without the liability of the teeth breaking off the plate. There are no joints or crevices in the gum or between the teeth and plate for the lodgement of particles of food or secretions of the mouth. They will not corrode or become offensive, being made entirely of porcelain can be fitted to the mouth more perfectly than any other kind of work, and are offered much cheaper than the usual price of teeth set on Gold Plate. They were patented in Nov., 1855, by B. A. Satterthwait, of Lima, Allen Co., O. Robinson & Brother have purchased the right to manufacture said teeth. Persons requiring whole or parts of sets, and who wish to procure superior work can consult us at our office, Rouse's Block, corner Superior St. and the Public Square. J. A. Robinson. (Same, rest of year, and Jan., Feb., 1857). B. F. & J. A. Robinson, Rouse's Block, last six months 1856 and first eight months 1857.

Plain Dealer, Jan. 10, 1856.

A. B. Halliwell, M. D., Surgeon Dentist. Office and Dental Rooms No. 1, corner Ontario St. and Public Square, over Talcott's (Jeweler). Dr. H. is a resident of this city, having graduated at the Cleveland Medical College, which has enabled him to understand both the anatomy and pathology of the mouth and teeth which is of the highest importance to the Dentist. He has also in connection with E. Duman inserted 271 teeth

on plates, besides filling, extracting, etc., during the last twelve months in this city. Terms, 28 teeth on pure Gold Plate, \$65.00; 28 teeth on fine Silver Plate, \$25.00. Fillings from 4 to 8 shillings with fine gold. Inserting Pivot Teeth, 8 shillings each. Similar "ad" next five months.

Herald, Apr. 24, 1856.

W. H. Atkinson, M. D., No. 93 Superior St. Practices in Dentistry, Surgery and Office Prescriptions in Medicine. And will be pleased to see old or new patrons and friends. (Same, rest of year, and first 9 months 1857). Leader, last six months 1856.

Leader, July 4, 1856.

E. G. Burger, Dentist, No. 113 Superior St., Williams Block. Operations warranted satisfactory. (Same rest of year, and nine months of 1857).

Leader, July 10, 1856.

William Arnold manufacturer of Surgical and Dental Instruments, 25 Erie St., (nearly opposite the Medical College), informs the Surgical and Dental professions that he manufactures to order and keeps on hand a general assortment of instruments, all of which he will sell at eastern prices. A general assortment of porcelain teeth on hand. (Same rest year, and first four months, 1857.)

Leader, Apr. 16, 1856.

Dr. J. G. Moore, Dentist, is prepared to perform all operations connected with improved Dental Surgery, and will insert full sets, half sets and partial sets of true Porcelain Teeth, manufactured by M. L. Wright, M. D., of this city and will be ready to receive all orders from a distance, etc. Office, 13 Ontario St., two doors from Stone Church. (Same for six months.)

Herald, Oct. 8, 1856.

Improvement in Dental Surgery. M. L. Wright & Co. are manufacturing full sets and Full Half Sets, and partial sets of teeth, made entirely of Porcelain and is the same as that referred to by Prof. J. L. Cassels, Chairman of the committee on chemicals, and the product of chemical, also by the chairman of the Committee on Metals, E. T. Sturtevant, etc., in which the latter says that: "The prepared material from which our

teeth are made is deserving the highest commendation," and refers to Prof. Cassel's report which reads: "Your committee recommend that a Diploma be awarded to M. L. Wirght, M. D., of Cleveland, Ohio, for the best specimen of porcelain material prepared, and teeth manufactured from the same. The specimens of teeth both full and partial sets, far excel in beauty and apparent usefulness anything of the kind we have seen, and the testimony in favor of their utility, etc., seems to be of the most reliable character. Ohio State Fair, 1856.

Our Teeth, Plate and all are made from one solid piece of *true porcelain*, and substitutes a porcelain for a metallic base. This plan was patented in the U. S., May 2, 1854, and in the following Oct. in England and France, as will be seen by referring to the Patent Office Reports. Therefore we say anyone claiming to use a porcelain base similar to ours, with the exception of D. W. Burrell & Co., Dr. A. Wells, Dr. Philips and M. L. Wright & Co., in either the South or West, is either an infringement or an imposition. If any infringement, they will be dealt with as the law allows, if an imposition let it cure itself. Our teeth were not entered at the late State Fair as specimens of Dentistry, for reasons known and appreciated by the Board of the State Fair, and therefore our Diplomas are under the above heads. Office, No. 190 Lake St., opposite the Marine Hospital. M. L. Wright & Co.

(This is accompanied by testimonials from H. A. Ackley, M. D., and T. Garlick, M. D., same as in a previous "ad").

Herald, Oct. 26, 1856.

Dr. Halliwell continues to supply the loss of teeth without Springs or Wires, upon a new system of self-adhesion, and without extracting any teeth or stumps or giving any pain whatever, at the following charges: Single teeth, \$1.00. Complete set, \$30.00. Loose teeth fastened, whether arising from old age, the use of calomel, or neglect. Dr. H.'s method combines all the improvements of the U. S. and England. Dental Rooms over Churchill's Drug Store. (Same Nov., Dec., and first five months 1857, and similar "ad" Jan., Feb., Apr., June, July, Aug., Sept., Oct., Nov., 1858.

Leader, Jan. 5, 1857.

Jones, White & McCurdy's, Oram & Armstrong, New York Manufacturing Company's Teeth, a complete assortment of Dental Instruments and Bench Tools, Block Body, Gum Enamel, Silix, Spar, Platina Wire, Silver, Platina and Gold Plate, Ashmead's, Abbey's & Kearsing's Gold and Tin Foils, Hand Wheels, Foot Lathes, etc. Watts Crystal Gold. W. Fiske.

(Same rest of year, also year 1858).

Leader, Jan. 5, 1857.

B. A. Halliwell, M. D., Dentist. One minute on your Teeth, etc. July, Sept., Oct., and Aug., 1858, same as "ad" previously copied. 1858 it is Halliwell & Daniels, also Jan., 1859, and "Herald." June, Aug., Nov., Dec., 1861. Jan., 1862.

Leader, Apr. 24, 1857.

Burnett's Oriental Tooth Wash arrests decay, etc. E. W. Sackrider & C. S. McKenzie, Druggists.

Leader, Apr. 28, 1857.

Dr. W. P. Horton offers his professional services, etc., runs in May, June, July, Aug., Sept., Oct. Similar "ad" "Herald," Sept. 3, 1861.

Herald, Apr. 27, 1857.

Dr. J. G. Moore, Dentist, is prepared to perform all operations connected with Improved Dental Surgery, and will insert full sets, half sets, and partial sets of True Poreelain Teeth, manufactured by M. L. Wright, M. D., of this city, and will be ready to receive and fill orders from a distance, having made arrangements with Dr. Wright for the same. Specimens of my work may be seen at my office or at Dr. Wright's Laboratory, office at my residence No. 13 Ontario St., two doors north of the Stone Church, near the Public Square. (Same May, June, July). Daily Review Mar. 4, 1858 notes his office 107 Superior St., with Drs. Dodge & Johnson.

Herald, May 6, 1857.

The firm of Strickland and Horton, Dentists, was on the sixth day of Apr., 1857, dissolved by mutual consent. B. Strickland, W. P. Horton. Dr. W. P. Horton (late of Strickland & Horton) offers his professional services to the citizens of Cleve-

land and vicinity. Having had many years experience before associating himself with, and an extensive practice during four and a half years while a partner of Dr. S., he feels confident that he can please the most fastidious. His Gold Plate he manufactures himself from U. S. coin, without alloy. This makes a quality of plate so fine that it will not corrode in the mouth, thus avoiding to the patient the necessity of a daily scouring in order to keep it bright and clean, and teeth used are from the best manufacturing establishments of N. Y. and Phila. These with the requisite skill to unite them cannot fail of producing good work, and will give as good satisfaction as any that can be obtained in the above cities. He would therefore respectfully refer the public to the large number of persons in this city and vicinity now wearing sets and parts of sets of his make, and challenges comparison, in point of comfort to the patient, beauty, practical utility and durability. His set of Instruments for extracting teeth is the best in the city. His Instruments for Plugging Teeth, Removing Salivary Calculus, and Polishing natural teeth are complete and in perfect order. He thus flatters himself that he can perform any Operation in the Line of his Profession, whether Surgical or Mechanical, to the entire satisfaction of those who may favor him with their patronage. Sets of teeth made at the old prices, and other charges reasonable. He has opened a new office in Chapin's Block, corner of Euclid St. and Public Square. Entrance from Euclid St. at Chapin's Hall. (Same May, similar June, July, Aug., Sept., Oct.) Editorial May 16, "Doct. Horton's Dental Rooms in Chapin's Block are admirably located for the convenience of those requiring dental services. His application for the purpose of deadening the sensibility of the gums, during the operation of tooth drawing, has been much commended. It is what may be called the ice application, and while it is in every way safe, it is also efficient in preventing pain to the patient. Doct. H. has a most admirable set of tools—that is, if a person can see beauty in any surgical instrument, and a tasteful, pleasant office." In 1879 he moved to 258 Superior.

Herald, May 9, 1857.

Dr. E. Merritt & Co., respectfully informs the citizens of Cleveland and vicinity that they have opened an office in No. 4 East side Public Square, in rooms formerly occupied by Cleveland Library Association, where they are prepared to do a general dental business, in connection with making and setting Loomis' Patent Porcelain Teeth. Persons in need of artificial teeth, who are desirous of consulting beauty, durability, comfort, utility and cleanliness are requested to call at our rooms and examine specimens. Numerous references can be given where persons have discarded gold plate and substituted this beautiful method where teeth, gums and plate are all of one piece and made perfect to life. Dr. Merritt has for many years been a practical Dentist and manufacturer of Porcelain teeth in Pittsburg, Pa., and has associated with him Dr. J. Koch an experienced carver, being entirely acquainted with the manufacture of Loomis' Patent Teeth. All of our work guaranteed to give satisfaction. Dentists and others will be instructed, and rights sold to make and vend these patent teeth, on reasonable terms. All tools and materials wanted will at all times be kept on hand. (Same Aug., Sept., Oct., Dec., 1858, Jan., Feb., 1857, Sept., Oct., Leader.)

Herald, June 5, 1857.

Freezing to Avoid Pain. Dr. Strickland is prepared to use the apparatus patented by Dr. Branch for the purpose of rendering extracting and other operations on the teeth painless, by the application of cold. Dr. Strickland is also prepared to perform all work in the Surgical and Mechanical Department of the Dental Art, in the most perfect manner. All new improvements which have been satisfactorily tested will be promptly adopted. Dental Rooms No. 125 Superior St., where Dr. S. has been located for the last fifteen years. (Same July, Aug., Sept., Oct.)

Herald, July 16, 1857.

Dental Card.—Drs. Ambler, Dickerson and McCune having associated themselves for the purpose of pursuing the practice of Dentistry in all its branches, respectfully tender their professional services to the citizens of Cleveland and vicinity. Dental Rooms in Northrop & Spangler's Block, No. 154 Superior St. N. H. Ambler, M. J. Dickerson, T. McCune, D. D. S.

Dr. Ambler takes pleasure in introducing to the citizens of Cleveland, Dr. McCune, who is a graduate of the Philadelphia College of Dental Surgery, and a member of the Pa. Association of Dental Surgeons. (Same for four months, and Leader for July, Sept. Oct). First time D. D. S. "ad" here.

Herald, Sept. 22, 1857.

Cleveland Tooth Manufactory, General Offices and Laboratory, 190 Lake St. Improvement in Dentistry Pat. Aug. 11, 1857. M. L. Wright & Co., are manufacturing partial sets, half sets, and whole sets of Poreelain Teeth. Superiority of their method of producing Artificial teeth over any other known method: 1st, Simplicity. One piece chemically united in all its parts, and of the same quality of material. 2nd Solidity. That compels nature to adapt herself to the model of her own impression. This adaptation once attained—comfort and utility ever after. 3rd Purity. The entire plate and teeth are impervious to the chemical action of any known agent; hence in disease or health proof against the corrosive and offensive secretions of the mouth, common to gold plate work and other known methods. 4th Color. Bright, lively and a good imitation of nature.

N. B.—Any method of producing sets of Artificial teeth chemically united in one piece, that will not pass the ordeal of this digest is a counterfeit of true Poreelain. Patronage—Since Apr., 1855, we have inserted Five Hundred and Seven cases. Of this number eighty-six cases have taken the place of Gold Plate work. In the last named cases all have given their testimony to its superiority, and so with all other cases where our ends have been complied with. In no case where the teeth have been paid for, has there been any dissatisfaction. Terms—According to the nature of the case, and given after examination. Payment—Upon the receipt of the order, or on delivery. Persons having Gold Plate can apply their plate in part payment. Guaranty—Satisfaction; provided the terms of payment and Special Instructions have been complied with. Persons wanting information will be given reference to those in constant use of our work. We prefer to apply partial sets soon after extraction of the natural teeth—one week is long enough

to intervene between the extraction and the application. To our patrons and those who desire to become such, we will say that our arrangements are such that we can and will apply an entire double set of teeth fitted satisfactorily, within ten days after the arrival of the patient.

To the Dental Profession.—Those of you favorable to this enterprise, we will make arrangements with you, by which impressions may be taken of your patients cases, an articulation, etc., etc., and forwarded to us by express, and without delay returned fitted with reasonable accuracy to the fitting and articulating model. We will also make Block Work to order on reasonable terms.—Testimonials and References, T. Garlick, H. A. Ackley, M. D., Prof. J. P. Kirkland, Prof. S. B. Hunt, Prof. Gatchell, Wm. W. Richards, Dan. P. Rhodes, M. Jackson, Ex-Mayor Castle, B. L. Whitman, J. K. Curtis, E. T. Sturtevant.

N. B.—Having heard that persons claiming to do this work, and in many cases claiming to be our agents for the same, we will say that up to this date, we have no agents in the U. S. A. who have any right from the above patentee to any such claim, and in those cases it is either an infringement or an imposition, and if an imposition, let it work its own cure: if an infringement, we will in due time attend to that. M. L. Wright, M. D., Actuary for the Company. (Same, all 1858 and Jan., 1859). Longest ad I have seen up to now. Leader Aug., Sept., Oct., 1857. D. Pollock & M. L. Wright.

Herald, Aug. 9, 1858.

Preserve the Teeth.—There are few persons whose teeth are not discolored and breath tainted with unpleasant odors. For such Fontaine's Cream of Wild Flowers will prove the most effectual dentifrice. Whitening the teeth, purifying the mouth especially after smoking, and imparting an agreeable perfume to the breath. Sold by all Druggists.

Leader, Aug. 11, 1858.

Dr. B. F. Robinson has removed his Dental Office to his residence 46 Wood St., four doors North of the Methodist Church, where he will be happy to see all of his former patrons or any others who may need his services. (Same, rest of year, and first six months 1859, and first three months 1860). Daily

Review, same "ad" Apr., July, Aug., 1858. Similar in Leader, Mar., May, July, Aug., Sept., Oct., Nov., 1863 and first five months 1864 and same address 1867-8.

Herald, Nov. 15, 1858.

Halliwell & Daniels, Dentists. Painless method of curing the toothache, and decayed teeth without extracting or causing any pain. Persons requiring artificial teeth, also those wearing them by favoring us with a call will be shown specimens of full sets of Porcelain teeth, and the vulcanized compound which for beauty, durability, comfort and cleanliness are unsurpassed, there being no seams or points for the lodgement of food. Artificial teeth on Gold and Silver Plates without the aid of springs, clasps or wires. A full set from \$10 to \$50, and a perfect fit guaranteed. Children's teeth regulated during the first and second dentition. Rooms over Churchill's Drug Store, South side Public Square. (Same, Dec. and first three months 1859). Later, added to above "ad": "A whole set can be made in twelve hours without clasps or any metallic substance; they can be fitted over roots or cover a whole decayed tooth." (Same, for eight months 1859 and first six months 1860, and similar "ad" Jan., Feb., Mar., Apr., Ma., 1861 and Mar., 1862, to which is added: Teeth set on *Flexible* rubber. Similar "ad" in Leader, Apr., June, July, Aug., Nov., Dec., 1862, and first nine months 1863.

Herald, Feb. 28, 1859.

Dental Surgeon and Dentistry. In all its branches at No. 211 Superior St., Marble Block by W. B. Ingersoll. (Same, for next seven months).

S. B. Burnham, M. D., Dentist, S. W. Corner Superior and Erie St. (Has *two* cuts upper denture horse-shoe form, and runs rest of year, and Jan., Feb., Mar., Apr., 1860, with References to Prof. J. Delamater, M. D., Prof. H. K. Cushing, M. D., Erastus Cushing, M. D., Dudley Baldwin, Esq., S. Chamberlain, Esq.

Leader, Apr. 27, 1859.

Dr. W. J. Guild, Dentist, No. 253 Superior St., opposite Bennett House. Artificial Teeth. Inserted on Gold, Silver, Vulcanized Rubber Base, Porcelain, in the most permanent and

satisfactory manner. Terms reasonable. Electricity used in extracting teeth for those who wish to avoid pain. My work will recommend itself. No long list of M. D.'s, D. D.'s, Esqrs., etc., required. Office hours 7 A. M. to 9 P. M. (Same May, June).

Leader, May 21, 1859.

If your teeth are good, read the following lines. If your teeth are bad, read them with great care. If you have no teeth at all, lisp: A fact that is daily exhibited in the streets, in the social circle, in the parlor, by the humblest peasant and the proudest autocrat, is that hundreds of persons lose good sets of teeth for the want of the timely aid of a good and skillful dentist, a poor and inferior operation is in many cases worse than none at all. If your teeth are good, have them examined by a good dentist and keep them in order. If poor, no time should be lost but have them repaired the sooner the better, and escape that which Burns says is the hell of all diseases. All irregularities of the teeth should be attended to in childhood and youth. All persons desirous of the dental operations are invited to call at my room where particular attention is given to the preservation of the natural teeth, where the Vulcanized Coralite or Gutta Percha Base for Artificial teeth is manufactured and all varieties of artificial teeth are put up in the best manner. W. B. Ingersoll, Marble Block. (Same, June and Jan., Feb., Mar., Apr., 1859).

Herald, May 27, 1859.

M. J. Dickerson late of the firm of (N. H.) Ambler and Dickerson, office 253 Superior St., near Kendall's store. Dr. D.'s Dental Rooms are now open and he is ready to make appointments with those wishing dental services. He has spent some time this spring in different cities examining the different styles of work and is prepared to advise as to the best. Ulcerated teeth treated, fangs filled, exposed nerves capped and saved. Teeth inserted on Gold, silver, coralite or vulcanite base, or platinum plate with continuous gum, which is so much used East. (Same June, July, Aug., with *two* "cuts" of upper denture horse-shoe form).

Herald, June 27, 1859.

Dr. J. G. Moore is prepared to perform all operations in his professional line, according to all the latest improvements at

the shortest notice, and at living prices. Teeth extracted by Galvanism, Chloroform, Ether, etc., when desired, if necessary. Office No. 235 Superior St., over Fogg's China Store. (Same, July, Aug.)

Herald, Jan. 12, 1860.

Dental Cosmos.—I am agent for this work. It is worthy the attention and study of gentlemen of the profession. Please call and subscribe: price \$2.50 in advance. Wm. Fiske.

(Same Feb. Mar., Apr., June.)

Mar., 1860. My stock of Dental Goods is large and complete. Instruments, Teeth, Bench Tools, Plates and Foils. Wm. Fiske. G. W. Clarke succeeded Fiske Aug. 18, 1861 at 119 Superior.

Herald, Apr. 6, 1860.

Best of Operations by Atkinson and Butler. "Sound Teeth," "Perfect Health", Hoffman Block, 16 and 17 opposite the Post Office. W. H. Atkinson, D. D. S., M. D., C. R. Butler, D. D. S. (Same May, June).

Leader, Apr., 21, 1860.

Atkinson and Butler are now prepared, willing and able to execute operations in Dental Surgery proper, and Mechanical Dentistry in the very best style and promptly at 16 and 17 Hoffman Block, opposite the *new* Post Office. (Same, May, June, July, Aug., Sept.)

Leader, Sept. 9, 1860.

Humphrey's Specific Homœopathic Baby's Pills, which you may drop into the mouth any time. They allay the irritation of teething. Sold by E. D. Sackrider and Churchill and Brother.

Leader, Oct. 31, 1860.

Mrs. Winslow's Soothing Syrup for children, teething. Strong & Armstrong, 199 Superior St.

Herald, Feb. 14, 1861.

Parson's Camphorated Dentifrice. N. C. Brewer, 13 Pearl Street.

Herald, May 1, 1861.

Nice Tooth Brushes. E. A. Palmer, Druggist, corner Erie and Prospect.

Leader, Feb., 13, 1861.

Dentists' Materials, Instruments and Tools, Precipitated Silver, Roberts' Os Artificial, Best Tin Foil, Jones & White's Teeth, Iron Handle Sealers and Pluggers, Hand Grinding Apparatus, Franklin's Double Impression Cups, Stone Ingot Moulds to slide, and many other articles. Wm. Fiske.

Similar "ad" July, Aug., Sept. G. W. Clarke successor to Wm. Fiske. Similar "ad" most of 1862-3-4-5.

Leader, Mar. 26, 1861.

J. B. Cobb & Co., 136 Superior St., Booksellers "ad" Goddard on the Teeth. Owens on the Skeleton and Teeth.

Leader, Oct. 2, 1861.

Dentistry. Dr. D. F. Knapp would respectfully announce to the public that he will be at Oberlin on Tues., Wed., Thurs. of each week, where he will attend to the business of Dentistry in all its branches, the remainder of the time at his home in Olmsted Falls. (Cut of upper denture horse-shoe form).

Leader, Jan. 11, 1862.

Mr. Randall has this A. M. removed from my foot a corn of twenty years standing, in a few minutes and without pain. W. P. Horton.

Leader, Nov. 5, 1863.

For *toothache*, use Porter's Cure of Pain. W. L. Porter, Prop., Cleveland, O. (Same Jan. Feb., Mar., Apr., 1864).

Leader, Oct. 10, 1863.

Lost, 200,000 Teeth. But Prof. Learean's Pollen of Roses is at hand. Be wise and buy. Don't wait for the toothache. (Same, Nov., also Jan., 1864.)

Leader, Nov. 23, 1863.

Teeth Extracted Positively Without Pain with the Nitrous Oxide Gas. Dr. Dickerson has secured the services of Dr. Pond of N. Y., for a few days to assist him. Dr. Pond has a large experience in preparing and administering the Gas, having been with the celebrated Dr. Colton and administered it in thousands of cases with entire success. Dr. Colton first applied this Gas for surgical operations about six months ago, and within the past two months has extracted over four thousand teeth with

satisfaction. The advantages of Gas over Ether and Chloroform are: First, It is perfectly harmless, no injury was ever known to follow its inhalation. Second. The Insensibility produced is perfect where the Gas is pure and properly administered. Third. It is pleasant to inhale, having no disagreeable smell or taste and never produces nausea and sickness to say nothing of the danger which often attends Ether or Chloroform. Fourth. The whole time occupied of inhalation, tooth extraction and returning to perfect consciousness, does not exceed three minutes. From three to ten teeth can be extracted by one dose, depending on location, temperament and age. No injury results from giving five or six doses in succession—waiting after each dose for the bleeding to subside. Fifth. It can be given with safety in all sorts and stages of disease—can be given to persons suffering from consumption, heart disease, rush of blood to the head, etc., with no bad effects. Many hundred testimonials might be presented but the following from Rev. Thos. G. Osborn of New Haven, Conn., is deemed sufficient. He says: I had six firmly rooted teeth extracted while under the influence of the Nitrous Oxide Gas administered by Prof. Colton. During the operation I experienced no pain, and was delighted on returning to consciousness, to find that my teeth had been removed without a disagreeable sensation. I enjoyed a most delightful dream while asleep. I have experienced no inconvenience from the administration of the Gas. My daughter had one, and my sister two teeth extracted while under the influence of the same Gas, and their experience and testimony accords perfectly with mine. I was induced to submit to the operation in consequence of the testimony of several members of my church and congregation, who informed me that their teeth had been extracted without pain while they were under the influence of this powerful remedial agent. To those who have been tortured by submitting to the extraction of teeth while vividly conscious, and who desire a more excellent way of removing these offending members. I can cordially recommend Prof. Colton and his skillful assistant. Dentists in the city or vicinity, sending patients, can have them returned with their mouths ready for the impression. Office, 211 Superior St., Marble Block. (Same, rest of Nov.)

Leader, June 17, 1864.

Dr. J. Greenfield, Dentist. Office, No. 16 Hoffman's Block.
(Same July 14).

Leader, July 25, 1864.

Halliwell & Daniels, Dentists, return thanks for the very liberal patronage they have received for the past twelve years, and hope for a continuance. We also beg to inform those who are in need of artificial teeth and other work in our profession, that our prices will be governed by the value of *Gold* on and after the 1st Sept. next as we have to pay *gold* or its equivalent in *Greenbacks* for all the material we use, consequently we are compelled to advance our prices. A full set upper or lower from ten dollars upwards until the specified time. Rooms, cor. Ontario and Public Square. (Same Aug., Sept. and similar Oct., Nov., Dec.)

Leader, Dec. 22, 1864.

New Dental Establishment. H. H. Newton respectfully announces to the people of Cleveland and vicinity that he has opened a Dental Office at 211 Superior St., Marble Block, formerly occupied by Dr. M. J. Dickerson. He is now prepared to perform all operations on the teeth necessary for their preservation, in a thorough and skilful manner. Artificial Teeth Inserted, from a single tooth to an entire set upon Gold, Silver and Vulcanized Base, and warranted to give good satisfaction in all cases. References: Hon. L. Poland, and E. and T. Fairbanks, St. Johnsbury, Vt., Dr. Dio Lewis, Boston, Mass., Heman Ely, N. B. Gates, Elyria, O. R. A. Dinsmore was a student of H. H. Newton's.

A Card.—Dickerson takes this opportunity to express his grateful acknowledgements to the many friends and patrons who have favored him with their confidence. Having disposed of my practice to Dr. Newton, it affords me great pleasure that I am able to recommend in him a thorough and skillful dentist, and in whose integrity it will be safe to rely. In 1867 he moved to 49 Prospect St., and 1868 to 122 Ontario St., and in 1874 to 14 Euclid Ave., and in 1877 to 303 Euclid over Sterling & Co. carpet store. Same location 1879.

Leader, Jan. 21, 1865.

The partnership heretofore carried on by A. B. Halliwell and J. R. Daniels, Dentists, has this day been dissolved by mutual consent. The business for the present will be carried on by Dr. Halliwell at the old establishment, where all claims against the said firm will be settled, and all outstanding debts due the said H. and D. must be paid on or before Apr. 1, 1865, or they will be placed in the hands of a collector. Alex. B. Halliwell, M. D., J. R. Daniels.

On Mar. 29 Dr. H. advertises he has moved to his Block. 85 Michigan St., first door from Ontario St., North side. (Same Apr., May, June, Nov., and another "ad" Nov., Dec., 1866, and Jan., 1867. On Apr. 18, J. R. Daniels advertises he is at the cor. Ontario and Square, and making teeth at the old prices *before* the war. In 1877 he moved to 136 Ontario St. (Same May, June, Nov.), another "ad" all of 1868 and June, July, Aug., Sept., 1869, and Jan. 28, 1870, he advertises Laughing Gas. Same Feb., Mar., Apr., May, June, similar "ad" Jan., Feb., Mar., 1871.

Leader, May 26, 1865.

Sozodont for the Teeth, for sale by Churchill & Brother, Aug. 3, the "ad" reads: You can't open your lips Ladies without revealing whether you use Fragrant Sozodont or not. No occasion for words. Your teeth and breath speak for you.

Leader, May, 1866.

Dentistry. Butler & Greenfield have removed their Dental Rooms to house No. 282 Superior St., opposite Case Building. Dr. C. R. Butler, John Greenfield. (Same rest of year, and Jan., 1867).

Leader, Jan. 15, 1867.

Notice is given that the undersigned have this day formed a co-partnership as Operative and Surgical Dentists at 85 Michigan St., Alex. B. Halliwell, M. D., John Greenfield. (Same Feb., Mar., Apr. and more extended "ad" May and rest of 1867 and first nine months 1868).

Leader, Aug. 6, 1867.

Movement on foot to establish the Cleveland Times to be published by a Stock Co., the incorporators are, A. B. Halliwell

and others, capital stock \$100,000 and \$20,000 has been paid in. No need of another paper.

They will get rid of their money so fast that it will make their heads swim; disappear like water poured on sand; absurd, foolish project. (Chicago Tribune).

Leader, Apr. 21, 1868.

Dr. H. L. Ambler, Dentist, Park Place, corner Ontario St., opposite Stone Church.

Leader, Apr. 14, 1869.

A Valuable Invention in Teeth. These Artificial Teeth are cheaper, more durable and comfortable than those of any other description known. Dr. Halliwell's patent was issued Jan., 1860. State, County or Office rights for sale on reasonable terms to Dentists. Halliwell & Greenfield, 85 Michigan St. (Same in Herald, June 1, and June 17, viz.: "Iodized Rubber Base for Teeth. Dr. Halliwell with a practice of 18 years in this city, begs to call attention to his new patents for Artificial Teeth." Same July, Aug., Sept.

Herald, Jan., 1870.

English and German Dentists, established 18 years. Teeth extracted without pain or permanently restored to use. Dr. H.'s Artificial Teeth are pronounced to be the most useful and lifelike, only excelled by sound natural Teeth. Sets \$10 and upwards. A. B. Halliwell, M. D. John Stephan, Dentist. Same Feb., Mar., Apr. In 1871 the Halliwell Dental Association claims to have inserted 100,000 artificial teeth. Herald, June 21, 1870. Teeth upon Whalebone, Rubber, etc. The device is a cushion of flexible rubber inside the hard Whalebone Rubber, etc. Dr. Halliwell & Co., Dentists. Instructions with office rights, and Rubber for sale to Dentists. Jan. 24, 1871. Dr. N. T. Folsom's Improved Atmospheric Plates for Cuyahoga Co., patented 1867 in U. S., Eng., France.

Herald, Jan. 11, 1871.

Dr. F. K. Thorpe's Dental Office, 136 Ontario St., is an institution worthy of your support, to which the many who are now availing themselves of its advantages can testify, placing perfect dental operations within the reach of the most moderate means. Teeth filled with Gold and saved, when in the most

diseased condition for $\frac{1}{2}$ the usual rates, restoring these important organs again to usefulness. Mar. 15, he adds, Gold fillings \$1.50, Extracting 25 cents. Apr. 17. Two chairs employed, gold fillings warranted June 8. Herald, May 9, 1873. Teeth—3,000 references, \$10 and \$15 a set. Thorpe Bros., 136 Ontario St., "ad" runs to June 16.

Herald, Jan. 22, 1872.

D. R. Jennings, Dentist. Office 223 Superior St. Same Feb., Mar.

Herald, May 29, 1872.

As Dr. C. R. Butler will be absent from town for some time he would refer those desiring his professional services to his partner Dr. H. L. Ambler, Park Place.

Leader, May 6, 1874.

Edwin Smith & Son, successors to Clark Smith & Co., 119 Superior St., wholesale and retail Druggists, Dental and Surgical Depot. Same, June.

Leader, June 1, 1874.

Dr. Hurd Dentist. Regulating and filling, also extracting by nitrous oxide a specialty. O. J. Hurd makes a set of teeth for \$10 and upwards, satisfaction guaranteed. He has exclusive right to make Hurd's Popular short plate Pat. Apr. 27, 1869, (cut shows upper denture horse-shoe form).

Leader, June 10, 1874.

I have for sale Dental Instruments of the latest patterns and improvements. G. W. Clark, 42 Public Square. Apr., 1876, Clarke went into bankruptcy and H. C. White the assignee sold his stock.

Herald, Jan. 14, 1875.

Lawson's Curative for Neuralgia, Toothache, etc. Rub it on spine. (Same Feb. 15, 1876).

Herald, Jan. 16, 1875.

H. H. Newton and J. C. Merritt, Dentists, 11 Euclid Ave. (Same for six months, and Jan., 1876). In May, 1876, Dr. Merritt moved to 136 Ontario St.

Leader, Jan. 1, 1876.

G. H. Hurd, Pat. Automatic Nitro-oxide Gas Inhaler and Jaw Brace. As the gas only lasts from 15 to 30 seconds, it gives

time to extract without pain and the danger of breaking double the number of teeth (at a dose) of any other apparatus, saves loss of time in turning off the gas, getting the forceps, and mouth open. His gasometer holds a dose, works without weights or friction. Office and residence, 163 Broadway. Price of apparatus \$28. (Picture of man's head, mouth open, inhaler in front held in a man's hand with a forcep and a molar in the beaks. Same Feb., also Oct., 1877. Another "ad" first six months, 1882. In 1884, office 370 Euclid, open day and night.

Leader, May 11, 1876.

Gold! Pure Gold for filling Teeth at Hurd Bros. Dental Parlors at Low prices, 18 Euclid Ave.

Herald, May 10, 1876.

J. E. Robinson has removed his Dental Office to 60 Wood St. Same to July, 1877.

Leader, July 7, 1877.

J. Stephan, Dentist, has moved from 85 Michigan to Southwest cor. Public Square over Hartness & Huling's Drug Store. (Same, rest of year).

Leader, Oct. 6, 1877.

Dr. C. R. Edson, Dentist, 74 Public Square, over Fulton Market, first class work. \$8 for upper or lower set, open 7 A. M. to 10 P. M. Sunday till noon. Gold fillings \$2 up. Same Nov., Dec.

Leader, July 20, 1878.

Dr. F. S. Slosson, Druggist and Apothecary, 223 Superior St., (after he retired from dentistry). Same location 1880-4.

Leader, Dec. 18, 1878.

A new process of inserting artificial teeth—no plate or extraction of roots. Halliwell, Nephews & Goulding, Practical Dentists, 85 Michigan.

Herald, Mar. 6, 1878.

We announce to Dentists that we are agents for G. W. Archer's entire line of dental furniture, including all attachments. His chairs have been sold all over the world. Sold on monthly payments. Vincent, Sturm & Barstow, 114 Water St.

Leader, July 10, 1879.

Dr. H. F. Barnes, Dentist, cor. Woodland and Willson, over Bock's grocery.

Leader, Oct. 22, 1879.

G. H. Hurd and J. W. Dawson have moved from 163 Broadway to 330 Euclid and formed an association of dental specialists, with C. S. Hurd and H. L. Tripp with down stairs parlors next to Hyman's Dry Goods Store, where Dr. Strickland's old place has been remodeled, filling, cleaning, extracting without pain by G. H. Hurd's Pat. system of vitalized air—all to the greatest perfection. (He has the exclusive right to this system in Cleveland, and he can be found at the Steam Dental Association). C. S. Hurd "ad" in Press, Jan. 11, 1893.

Leader, July 8, 1880.

Halliwell & Campbell make a specialty in artificial and the filling of decayed teeth—we have reduced our prices $\frac{1}{2}$. Artificial teeth can be fitted over decayed roots without pain. See letters Pat. Apr., 1869 U. S., London, Paris. Established 1852. (We are not only the oldest, but we do the cheapest and best work in the city or state. "ad" Sept. 16, 1880). Similar "ad" most of 1882 and 86. Herald, July 29, 1882, similar "ad" of Halliwell, Campbell & Co., and first six months of 1883. Aug. 24, 1882, Dr. Halliwell's Oriental Tooth Powder, the purest and best in the city.

Plain Dealer, May 17, 1881.

Edison's Polyform is made according to a formula devised and used by myself. It cures neuralgia, etc. Thomas A. Edison.

Herald, Oct. 18, 1882.

V. McAlpine, Dentist, 306 Euclid Ave., Room 10 cor. Public Square. Same, Nov., Dec. Press, Nov. 8, 1886. V. McAlpine permanently located on Pearl St., cor. Seymour Ave. Sign of the Golden Molar.

Leader, June 11, 1882.

W. P. Battles, (deceased), Dentist, 334 Euclid Ave. Same in Herald, July, Aug., 1882.

Herald, Dec. 25, 1882.

Kalodont, a liquid dentifrice free from acid, alkali or mineral. H. C. Gaylord.

Leader, May 2, 1884.

Vitalized Air and Painless Dentist, 81 Euclid Ave., opposite Opera House. *Five* first class workmen in attendance. C. S. Hurd.

Picture at each side of "ad" shows a girl with the index finger of each hand, at the corner of her mouth stretching her lips apart. Press, July, Aug., Sept., Oct., Nov., similar "ad"—removed to Forest City Dental Rooms, 104 Euclid Ave. Same, first six months 1877. Similar "ad" June, 1889 and News and Herald Aug., Sept., Oct., 1891.

Leader, Feb. 24, 1884.

Pond's extract cures Toothache.

Herald, Mar. 25, 1884.

St. Jacob's Oil cures Toothache.

Herald, May 14, 1884.

T. D. Lindsey, Nottingham, Bldg.; H. Barnes, 44 Public Square; P. H. Keese, 17 Euclid; R. Dayton, M. D., 246 Superior St.; R. E. Moon, 296 Pearl—Operative Dentistry, a specialty.

Plain Dealer, Oct. 31, 1884.

Attention Ladies.—2,000 boxes of my Standard Tooth Powder given away free to all ladies who call at my Dental Rooms; no difference whether you have work done or not. We extract teeth for 25 cents. Gas or vitalized air 50 cents, these are half the price of other dentists. 13 Euclid Ave., open nights. E. W. Thompson, D. D. S. Press, Jan. 2, 1893, shows a picture of a steel bridge and under it the word "work".

Press, July 1, 1886.

Dr. R. Dayton, moved to 13 Euclid. Best sets of teeth \$7. Extracting with vitalized air, 50 cents. Same, Aug., Sept., Oct., Nov., and first six months 1877. Jan. 29, 1889, he says: "call at 5 Euclid Ave., and test his superiority in workmanship and modernized methods." Same, next five months.

Press, July 7, 1886.

Teeth without plates, Gold crowns and bridge-work in latest style. Teeth extracted with gas or vitalized air, first tooth 75 cents each, additional one 25 cents. Best rubber plate \$8:

second, \$5.50. Gold \$50. Cement filling, 50 cents. silver 75 cents. Gold according to size of cavity—open nights. E. W. Thompson. Same, rest of year and first six months 1887. Another "ad" last six months 1888 and first three months 1889.

Press, July 16, 1886.

Aluminum Plates inserted by Dr. Sampsell are good as gold and cost no more than good rubber; partial sets without roof, fine gold fillings, prices low as the lowest, 89 Euclid, Nottingham Block. Same in Aug.

Press, Aug. 3, 1886.

Dr. Albaugh, successor to W. P. Battles, owing to fire in Nottingham Block, has moved to 19 Euclid, over Heyse's Restaurant. Same Sept., Oct., Nov.

Press, Jan. 21, 1887.

Dr. W. R. Long, Dentist, 5 Euclid Ave. Teeth filled at night; parlors lighted by electricity. Same rest of Jan., Feb. Moved to 11 Euclid May, 1889.

Press, Feb. 27, 1887.

Plates 6 to \$10. Fine gold and silver fillings. Work guaranteed; prices the lowest; open day and evening. J. G. Spaeth, 862 Lorain St. Same Mar., May, June.

Press, Mar. 11, 1877.

The lowest price, first class Dental office in the city. Teeth \$5 per set. Gold fillings \$1 up; silver 50 cents. Dr. Davidson, 94 Broadway. Same Apr., May, June. Same Jan., May, June, 1889, May 26, 1903, at 218 Perry St.

Leader, July 1, 1888.

E. L. Patchin, Kendall Bldg., vitalized air administered. Same rest of month, and Jan., Feb., Mar., Apr., 1889.

Press, Jan. 5, 1889.

A. B. Halliwell's great practice of nearly 50 years has attained for him wonderful success. We invite special attention to our Gold Medal.

Press., Jan. 7, 1889.

O. L. Olds, Dentist, 981 Woodland Ave., open 8 A. M. to 6 P. M. Same, June.

Press, Jan. 23, 1889.

Dr. H. Hurd positively extracts teeth without pain. Cheap-est place in the city. 5 Euclid Ave., in Mar., Apr., May, he adds, Dr. T. D. Rowley operator.

Press, Apr. 17, 1889.

H. L. Tripp, Dentist, 83 Erie St. Same, June.

News and Herald, July 1, 1891.

We extract teth painlessly by a simple application to the gums. This is a fact. Drs. A. A. Wilcox and M. D. Furlong, 8 Euclid Ave. Later they say, fill and extract painlessly by a new and wonderful invention. Same, rest of year, May 3, 1892. Furlong moved to 29 Euclid. Same Apr., 1893; May, 1892, Wilcox moved to 89 Euclid.

News and Herald, July 16, 1891.

Philadelphia Dental Rooms, 199 Superior. Elegant set of teeth, \$5. Best, \$8. Gold filling \$1 up. Silver 75 cents. Amalgam 50 cents. Extract 25 cents. Vitalized air 50 cents. Largest Dental establishment in the World. Same, Sept. "Ad" Mar., Apr., June, 1893, at 451 Pearl St. For Lawyers, Preachers, Public Speakers—a crown or bridge.

News and Herald, Dec. 9, 1891.

P. W. Murton, Dentist, 8 Euclid. Open evenings. Sunday 9 to 12.

Press, May, 1892.

Dr. H. L. Sprackling, 638 St. Clair St. Teeth with or without a plate.

Press, May, 1892.

F. A. McAuley, D. D. S., Dentist. Harmless anesthetics used in extracting, 106 Euclid.

Leader, June 6, 1892.

Dr. J. S. Rosenthal, 89 Euclid. Teeth painlessly filled and extracted.

Leader, June 11, 1892.

Tooth Food. This medicine for babies prevents and cures pains of teething and resulting diseases, not by putting them to sleep, but by supplying the tooth-forming ingredients which are lacking in mothers' milk and all artificial foods. Reynold's Mfg. Co., Cincinnati, O. Same, July, Aug.

Press, Jan. 13, 1893.

A. E. Unger, Dentist, cor. Euclid and East End Ave., Lakeview. Same Feb.

Press, 1893.

Boston Painless Dentist, 11 Euclid. For 60 days, best teeth \$7. Good fillings \$1. W. J. Wycoff. First six months of year.

Press, June 12 1893.

Odontone for the painless filling of teeth, and Odontunder for painless extraction, no gas or vitalized air, no pain, all work guaranteed. Leader, Jan. 5, 1895. Odontunder Dental Parlors, 170 Superior St. Teeth filled without pain.

Press, June 23, 1893.

Dr. Johnson. Something new in artificial teeth. Gold and Aluminum plates, reasonable prices. Crown and Bridge-work at reduced prices, open evenings—9 A. M. to 8 P. M. Sunday, 9 to 12, 122 Euclid.

Leader, Feb. 2, 1895.

Painless Dentistry. Philadelphia Dental Parlors. The Stedman Spring Pat., May 19, 1891 and May 3, 1892, for holding lower teeth firmly in place under all conditions, also the Stedman improved Dental Plate, Pat. Sept. 24, 1889, Feb. 25, 1890. Method of making partial dentures, doing away with large suction plates; these plates are about $\frac{1}{8}$ to $\frac{1}{4}$ the usual size. Guarantee with each plate. The largest and finest establishment in the world. Crown and bridge-work $\frac{1}{2}$ price, etc. W. H. Knowles, 199 Superior St., and 451 Pearl. Similar "ad" Mar., Sept., Oct. Same Jan., Feb., 1898, signed C. J. Hill.

News and Herald, Oct., Nov., similar "ad," 1895.

Leader, Apr. 21, 1895.

Dr. R. R. Peebles has moved his office to his residence 31 Courtland St.

News and Herald, July 23, 1896.

High class dentistry by experts at one-half the charge of other first class dentists, etc., special pain saving appliances. No charge for estimating the cost of putting your mouth in thorough order. U. S. Dental Association, 76 Euclid. An ex-

pert for each branch gives the highest skill at the lowest cost. Same Aug., Sept. Press, Mar. 16, 1897 says: "Lady in attendance. Similar "ad" Jan., Feb., 1898, also Aug., Sept., 1900, in Plain Dealer, which says: "No boys or students assist us. Corrugated suction plates are made and owned by us only."

News and Herald, Nov. 25, 1896.

Dr. Lyon's Perfect Tooth Powder, an elegant toilet luxury used by people of refinement for over a quarter of a century. Same Plain Dealer July, Sept., 1900, and Nov. 5, 1905. First introduced 1866.

Press, Jan. 15, 1897.

Western Reserve University Dental College. Free clinic 1 to 4 P. M., except Saturday and Sunday. Teeth extracted free; fillings, artificial teeth, crown and bridge-work at cost of materials, 262 Prospect St., Bangor Bldg. Apr. 22, 1903, Dental College Clinic open 9:30 to 12 and 1 to 4:30. Same, 1906.

Press, Mar. 15, 1898.

Best Teeth with one gold filling \$5. 22 karat gold crowns \$3.50. Bridge-work \$3.00 per tooth. Vitalized air, all work first class and guaranteed; we employ no help. Bring this "ad" with you. Cleveland Dental Parlors, 236 Superior St., 8 A. M. to 8 P. M. Sunday 10 to 3. H. E. Hudson, D. D. S. R. A. Hudson, M. D.

News and Herald, May 9, 1899.

Teeth extracted free, all work at cost of materials. Cleveland Dental Clinic, Pythian Temple, corner Prospect and Huron.

Plain Dealer, July 3, 1900.

Dr. Bigelow the popular Cleveland Dentist and painless extractor, 309 Arcade. You get painless work there every hour of the day in each week, but Wednesday P. M. you get reductions. Try him for one tooth free. His picture appears with the "ad."

Plain Dealer, July 1, 1902.

Boston Dental Parlors. High Class Dentistry at popular prices. All work painless, 50 Euclid Ave. Same May, June, 1903, 1906, in Press, says: "Call and have a talk, we will explain matters to you. No charge for examination, it is our

pleasure and business." The rugae suction plate is our invention. Similar, Press, Sept. 8, 1910.

Plain Dealer, July 2, 1902.

Our Corrugated Suction Teeth Stick up in any mouth. U. S. Dental Rooms, 76 Euclid. German spoken. Same Aug., Sept., and Oct., Dec., 1905. Press, Apr. 26, 1903. All work guaranteed in writing for ten years—picture of dentist with his finger in a lady's mouth. Similar, Jan., Feb., Mar., 1907. Similar, Jan., Feb., 1910. Press, Aug. 26, 1910, says: "Consider our 60,000 patrons" and is signed McKenney Dental Co., owners. "Cut" of full upper and under denture occluded. Similar in Press, Mar. 8, 1911. They are very extensive advertisers.

Press, Apr. 1, 1903.

Our dentists are graduated, registered and experienced. We do not employ students. Teeth without plates \$5. Extracting, cleaning, advice, free. All work painless and guaranteed for years. Odontunder Dentists 280 Arcade. Feb., 1906, Plates \$10, \$7, \$5. Eighteen years in Cleveland.

Press, Mar., 1907, Republic Bldg. Feb., 1908. We offer great reductions. They have been very extensive advertisers for years.

Press, Apr. 10, 1903.

Nothing cheap about our work except the prices. The material is the best, the doctors are graduates, the work painless and guaranteed ten years. Union Painless Dentists, 19 Euclid. German spoken. Open Sundays till 1. Lady attendant. Report any dissatisfaction to Dr. Meade. (Great advertisers).

Press, May 26, 1903.

Dental Clinic free, no students. Complying with requests to teach several dentists our system of painless dentistry, we will do all work at cost of material: full set \$2; gold crowns \$2; fillings, all kinds 25 cents. New System Dentists, 190 Ontario St., Mar. 2, 1906. To ten first bringing this "ad" we will give \$1 each on dental work: next twenty 50 cents. Similar, Jan., 1907, Aug. 26, 1910 says: "500 Cleveland people visited our office last week," "cut" of full upper denture of bridge-work. They are extensive advertisers.

Press, June 19, 1903.

Reduced prices. Have your teeth fixed now and save 25 cents on every dollar. All operations done by our Eastern dentists are painless. If we hurt you in extracting your teeth don't pay us. All work guaranteed. Eastern Painless Dentists, 225 Superior.

Press, Jan. 1, 1906.

High Class Dentistry at moderate prices. All operations painless, ten years in same location. Dr. C. L. Franks, 176 Euclid.

Press, Jan. 6, 1906.

Dents Toothache Gum stops any Toothache. Prevents further decay. Does not melt in the mouth. It goes right to the spot. C. S. Dent & Co., Detroit, Mich.

Press, Jan. 14, 1906.

Alba Painless Dentists, Ontario and Broadway. Old reliable. All work painless and guaranteed. Best Gold Crowns \$3 to \$5. Open Sunday A. M.

Press, Mar. 23, 1907.

Dr. Bell's scientific Tooth Powder is highly fragrant and antiseptic: cures bleeding gums and loose teeth. Dr. Victor C. Bell, Lecturer on Hygiene of the mouth and care of the Teeth.

Press, Feb. 11, 1908.

Dr. Wernet's Powder for false teeth, makes loose, dropping, wabbling False Teeth fit perfectly tight at the first application. Cures sore gums, makes the breath sweet. "Cut" shows an upper denture and a hand holding a can and sprinkling powder on the teeth.

Press, Mar., 1908.

Why don't you smile? Have you ever stopped to think how your teeth looked to others? Unheard of prices, one-third what others charge. Teeth enameled \$3. Gold fillings \$1. Ext. Exam. clean free. Open 8 to 8; Sunday 9 to 1. Car fare allowed. German, French, Polish, Bohemian spoken. Reliable Dentists, 80 Public Square. "Cuts" of two ladies and two men's heads.

Plain Dealer, July 11, 1909.

Proper care of the teeth by Irwin Unger, D. D. S., Cleveland's Original Alveolar Expert and Pyorrhea Specialist. First, cleanliness; Second, frequent examination; Third, removal of all decay; Fourth, filling of all cavities; Fifth, all lost teeth must be replaced by artificial teeth so as to have perfect articulation. The greatest drawback to No. 5 is the thought of wearing plates, the horror of dropping and rattling teeth. How can this be overcome? Very simple—by calling on us. Our system of teeth without plates is just what you want, same as nature's teeth, even better, as they can give no pain. If you have two or more roots of teeth in either jaw, we can give you a complete set of teeth without plates. No pain attached to this work, no cutting of the gums, no drilling into the bone. Pyorrhea (Riggs' disease), loose teeth and bleeding gums positively cured. If all your teeth are gone and you must wear a plate, let us make one of our smooth suction, guaranteed never to drop in the mouth. Painless extracting guaranteed or no pay. We have no branch offices. Others are trying to copy these methods. Dr. Irwin Unger, 517 Euclid. German and French spoken. Similar, Aug., Sept., June, 1909. Press, Mar. 8, 1911. German, French, Bohemian, Polish, Hungarian spoken. News, Jan., Mar., 1910. Leader, Aug. 28, 1910, "ad" of half a column. He has been a very extensive advertiser for years.

News, May 17, 1909.

Do you need a set of teeth? Nothing too good for our patients. At the head of our plate department is Dr. L. W. Jones, of Louisville, Ky., he is fifty-three years old, and for thirty years made the making of artificial teeth a specialty. We believe he has no equal in the state. In this line we offer you the very best and satisfaction will be yours if you let us do your plate work, from \$5 to \$15. Drs. Chapman & James, Dentists, 227 Euclid. Similar Feb., Mar.

News, Jan. 1, 1910.

State Painless Dentists are best, 227 Euclid. Careful Painless Methods. Lady attendants who sterilize all instruments. Moderate Prices. "Cut" of an upper denture. Sim-

ilar, Mar. Press, Sept. 8, 1910. Work guaranteed in writing for twenty years: electrical appliances for the saving of all pain; bring this "ad" it is worth five per cent. discount. (Great advertisers.)

Leader, Aug. 8, 1910.

Talks on Teeth by R. Sidney, Millman, D. D. S. Natural Looking Beautiful Teeth. This "ad" covers half a column and says, in part: "By our Alveolar Method—owned, patented and practiced exclusively in Cleveland by us—teeth are fitted on the gums permanently, and anyone having two or more teeth, loose or tight, decayed or sound, can possess them. Riggs' disease—pronounced incurable by old method dentists—is permanently cured by our method. If your gums are sore and bleed easily, our treatment never fails to cure. Let us look your teeth over, this will cost you nothing. If you are suffering from poor dentistry or have lost all your teeth, our new Anchor plate is guaranteed to remain in place. We regulate twisted, crooked, protruding teeth, tighten loose teeth permanently. Crowns, fillings, porcelain and gold applied without pain, and without much time in the chair. If you cannot call, write for our free book. Success of this method has caused imitators to spring up who copy our advertisements. Be sure and come to the only place in Cleveland for the Alveolar Method. Dr. R. Sidney Millman, 280, The Arcade. (Great advertiser).

Advertisements from Directories

The writer has copied everything that appeared in the directories beginning with 1837 (the first) up to and inclusive of 1867-8 because the names of dentists, location of offices, and advertisements, are of historical interest. After the last date, the directories are easily accessible.

Directories were not published every year.

1837.—B. Strickland, Central Buildings, 1-3-5-7 Superior St., residence, American House. Coredon and Sargeant, 6 Franklin Building, corner Superior Lane and Water St. (Superior Lane was that part of Superior St. from Water St. down the hill to the river). Pop. about 5,000.

1845.—B. Strickland, 125 Superior St. M. L. Wright, 94 Superior St. Wm. Bailey, 135 Superior St. Samuel Spencer, 44 St. Clair St. Jas. C. Aiken, 20 Prospect St. Population, 9,573.

1846.—B. Strickland, 125 Superior St. F. S. Slosson, 13 Superior St. Wright and Hamlen, 94 Superior St. F. S. Slosson, Surgical and Mechanical Dentist. Mr. S. will perform all operations connected with his profession, in the most approved style of Eastern cities. Full sets of teeth inserted on double or single plate by atmospheric pressure, or by cylinder attachment, which secures against irritation often experienced in the usual method of attaching springs. Minor sets inserted, and teeth filled in the best manner, 135 Superior St. Drs. Wright and Hamlen, Surgical and Mechanical Dentists, are prepared to furnish, with promptness and despatch, anything in the line of Dental Surgery, from a toothpick, up to a full set of Mineral Teeth mounted on gold plate, in the latest and most approved styles of the old and new world, on reasonable terms, 94 Superior St., up stairs. Population 10,135.

1846-7.—B. Strickland, 125 Superior St. F. S. Slosson, 13 Superior St. Wright and Hamlen, 94 Superior St. Slosson has the same "ad" here as in the preceding directory. Wright and Hamlen have same "ad" as before, only they have added a "cut" of two molars, and an upper and lower denture.

1848.—B. Strickland, M. L. Wright, F. S. Slosson, L. D. Parker, E. L. Dodd, Chas. Bunn. Wm. Fiske, drugs, medicine, oil, varnish, dyestuff, gold leaf, Dental and Surgical Instruments, Teeth and Foils, No. 11 Superior St.

1850.—A. D. Bigelow, W. W. Gray, B. Pearce, F. S. Slosson, Dr. Wright, Surgeon Dentist, sole agent for the sale of Dr. Levett's Patent Enamel for Ohio, 74 Superior St. B. F. Robin-

son, manufacturer of Mineral Teeth and Surgeon Dentist. Dr. Strickland, Mineral Teeth made in Blocks, a perfect imitation of natural teeth and gums. Those interested will please call at the old rooms, 125 Superior St. and see for themselves. Population 17,034.

1850-1.—W. W. Gray, B. Pearce, M. L. Wright. A. D. Bigelow, Dentist, Cleveland, O., office corner Superior and Bank Sts., boards at the Weddell House. B. F. Robinson, Surgeon Dentist and manufacturer of Mineral Teeth, will perform all operations in dentistry in the best possible manner, office in New Bank Building, corner Superior and Bank Streets. With this "ad" is a "cut" of an upper denture.

F. S. Slosson, Surgical and Mechanical Dentist, attends to all operations connected with his profession at No. 143 Superior St., corner Public Square, Cleveland, O. With this "ad" is a "cut" of an upper denture.

Mineral Teeth.—Dr. Strickland has pleasure of informing his friends that he has recently improved teeth, made in blocks, a very perfect imitation of the natural teeth and gums. Teeth made in this way, appear far more natural when inserted in the mouth, than those made in the usual way. This gum possesses permanency, both of strength and color, equal to the best Mineral Teeth, and is in no respect liable to the prominent objections found against spurious and imperfect articles that have been used to imitate the gums. Those interested will please call at the old rooms No. 125 Superior Street and see for themselves. Accompanying this "ad" is a "cut" of an upper denture. Both before and after this date the M. D.'s advertised more or less.

1852.—H. P. Burdick, 74 Prospect St. J. Lukins, 9 Ontario St. S. P. Short, 58 Seneca St. W. P. Horton, 125 Superior St. B. Strickland, 125 Superior St. F. S. Slosson, Public square, cor. Superior St. A. D. Bigelow, Over Merchants' Bank. M. L. Wright, 106 Superior St. B. F. Robinson and N. H. Ambler, Kelley's Block. Fiske and Hall, Druggists, No. 11 Superior St. They kept dental supplies. Population 25,670.

1852-3.—H. P. Burdick, J. Lukins, A. D. Bigelow, F. S. Slosson, M. L. Wright, B. F. Robinson and N. H. Ambler (part-

ners). Drs. Strickland and Horton, Dentists, No. 125 Superior Street, Cleveland, Ohio.

Sole proprietors (in Cuyahoga County) of Dr. Allen's patent mode of setting Artificial Teeth, with a continuous gum fused upon the plate around the base of the teeth, so as to exclude all impurities which usually lodge in joints between, and under the end of artificial teeth. Specimens of teeth to be seen at our rooms. All operations necessary for the beauty and preservation of the natural teeth performed in the best manner.

S. P. Short, Dental Surgeon, may be consulted at his laboratory 50 Seneca St., or at the Daguerrean rooms of Mrs. Short, Miller's Block. All operations warranted. Population 30,000.

1856.—B. F. and J. A. Robinson (brothers), Dentists and Manufacturers of Mineral Teeth. Rouse Block, corner of Superior St., and Public Square, Cleveland.

1857.—N. H. Ambler, W. H. Atkinson, E. G. Burger, B. F. and J. A. Robinson, F. S. Slosson, B. Strickland, W. P. Horton, M. L. Wright, A. P. Morse, A. B. Halliwell, L. C. Ingersoll.

Joseph Willson, Dentist, 27 Perry St., performs all operations appertaining to his profession in a careful, durable and satisfactory manner. Artificial Teeth on Pivots, or on Gold, Silver, or Palladium Plate. Toothache cured, and teeth filled and preserved through life if taken in time.

A. B. Halliwell, M. D., Dental Surgeon, over Churchill's Drug Store, returns his thanks for the extensive practice he has received from the public of Cleveland and vicinity the past four years, and will be pleased to see old or new patrons and friends at his office from 8 A. M. to 6 P. M., Sundays excepted. Filling decayed teeth with his celebrated White Terro Paste which never changes color, and makes a decayed tooth into a solid substance, useful for mastication and articulation, preventing toothache, and lasting many years. Pivot tooth \$1. Complete set on silver \$30. Complete gold \$75. Filled with gold foil or crystallized \$1 and upwards. Wm. Fiske, Druggist, 23 Superior St. Dental supplies.

1857-8.—Ambler (N. H.), Dickerson and McCune, 154 Superior St. W. H. Atkinson, 93 Superior St. C. R. Butler, 93

Superior St. E. G. Burger, 113 Superior St. A. B. Halliwell, 2 S. Ontario St. W. P. Horton, Chapin's Block. L. C. Ingersoll, Columbus Block, West side. Rodney Mathews, 10 Public Square. W. S. Mawson, 131½ S. Erie. E. Meritt and Co., 4 Chapins Block. J. G. Moore, Columbus Block, West side. Robinson Brothers, (B. F., J. A.), 135 Superior St. F. S. Slosson, Public Square. B. Strickland, 125 Superior St. Jos. Willson, 27 S. Perry St.

Robinson Brothers, Dentists, Manufacturers of porcelain teeth, also block and single mineral teeth, Rouse Block, Cleveland.

M. L. Wright and Co., 190 St. Clair St., have a full page "ad" and were awarded a diploma for Mineral Teeth. The teeth and plate are made of a solid piece of true porcelain. Pat. in U. S. May 7, 1854, England and France, Oct., 1854. (H. A. Ackley, M. D., and T. Garlick, M. D., gave Wright and Co. valuable testimonials regarding their work).

1859-60.—W. H. Atkinson, W. J. Beattie, Frank C. Briggs, E. G. Burger, S. B. Burnham, M. J. Dickerson, Jas. Goodwillie, W. S. Guild, Halliwell and Daniels, Geo. Langsdorff, W. Le-Baron, A. P. Morse, B. F. Robinson, F. S. Slosson, B. Strickland, Jos. Willson, M. L. Wright.

J. G. Moore, Surgeon Dentist, office 235 Superior St., over Fogg's China Store, (extracts and replants teeth). W. P. Horton, late of the firm of Strickland and Horton, Dentist, corner of Euclid St. and Public Square.

Dentistry at 211 Superior St., Cleveland. If your teeth are good, read the following lines. If your teeth are bad, read them with great care. If you have no teeth at all, lisp. A fact that is daily exhibited in the streets, in the social circle and in the parlor, by the humblest person and the proudest autocrat is, that hundreds of persons lost good sets of teeth for the want of the timely aid of a good and skillful dentist. A poor and inferior operation is in many cases worse than none at all. If your teeth are good, have them examined by a good dentist, and keep them in order. If poor, no time should be lost, but

have them repaired, the sooner the better, and escape that which Burns says, is the hell of all diseases. All irregularities of the teeth should be attended to in childhood and youth. All persons desirous of fine dental operations are invited to call at my room, where particular attention is given to the preservation of the natural teeth, where the vulcanized corallite, or Gutta-percha base for artificial teeth is manufactured, and all varieties of artificial are put up in the best manner. W. B. Ingersoll, Marble Block. Population per U. S. Census, 43,883.

1861.—N. H. Ambler, W. H. Atkinson, W. J. Beattie, F. C. Briggs, L. Buffett, E. G. Burger, S. B. Burnham, M. J. Dickerson, Jas. Goodwillie, W. S. Guild, Halliwell and Daniels (1½ page "ad"), W. P. Horton, W. B. Ingersoll, W. LeBaron, J. G. Moore, A. P. Morse, B. F. Robinson, F. S. Slosson, B. Strickland, Jos. Willson, M. L. Wright and Lewis Buffett who has an "ad".

Langsdorff and Koch, Dentists, 48 Public Square. G. W. Clark, Druggist, 119 Superior St., dental supplies.

1861-2.—N. H. Ambler, Atkinson and Butler, F. C. Briggs, L. Buffett, M. J. Dickerson, W. S. Guild, Halliwell and Daniels, W. P. Horton, G. Langsdorff, J. G. Moore, A. P. Morse, B. Pearce, Pollock and Finch, B. F. Robinson, F. S. Slosson, B. Strickland, M. L. Wright.

1863-4.—N. H. Ambler, F. C. Briggs, L. Buffett, C. R. Butler, M. J. Dickerson, W. P. Horton, J. G. Moore, A. P. Morse, D. and J. Pollock, B. F. Robinson, J. E. Robinson, F. S. Slosson, J. C. Stephan, B. Strickland, Dentistry.

Special attention given to dentistry in all its branches. Filling and cleansing decayed and adjusting irregular teeth. Whole and parts of sets put in upon the most approved method, with the best of materials, and warranted to give satisfaction. By N. H. Ambler, Dentist, Dental Rooms, No. 236 Superior Street.

Dentistry.—Dr. J. E. Robinson, Dentist, No. 253 Superior Street, Cleveland, Ohio, over Marchand's Millinery Store. Dentistry of all the improved styles done in the best manner, and at reasonable rates.

A Single Tooth One Dollar.—Artificial Teeth upon Vulcanized Rubber Base, with our mode of inserting, is pronounced by all to be the most life-like and useful in eating, speaking or singing. They can be fitted over any remaining roots without giving pain, and warranted to fit, for less than half our former prices. Experience has brought the practice of our profession to so high a degree of perfection, that partial or entire sets can be made without the least inconvenience to the patients and undistinguishable from Natural Teeth for \$10, \$15, \$20 per set. Established over ten years, corner Ontario Street and Public Square, Halliwell and Daniels, Dentists.

G. W. Clark, Druggist, 119 Superior St., Dental Supplies.

1864-5.—N. H. Ambler, F. C. Briggs, L. Buffett, C. R. Butler, M. J. Dickerson, W. P. Horton, Halliwell and Daniels, J. G. Moore, A. P. Morse, H. H. Newton, B. F. Robinson, J. E. Robinson, F. S. Slosson, J. C. Stephan, B. Strickland. Halliwell and Daniels, Stephan, Newton, J. E. Robinson have "ads". The M. D.'s also have "ads". G. W. Clark 119 Superior St., Dental Supplies.

1865-6.—N. H. Ambler, F. C. Briggs, L. Buffett, C. R. Butler, M. J. Dickerson, Halliwell and Daniels, W. P. Horton, J. G. Moore, A. P. Morse, H. H. Newton, B. F. Robinson, J. E. Robinson, F. S. Slosson, J. C. Stephan, B. Strickland, J. Greenfield.

1866-7.—N. H. Ambler, H. L. Ambler, F. C. Briggs, L. Buffett, C. R. Butler, J. R. Daniels, Jno. Greenfield, A. B. Halliwell, W. P. Horton, J. J. King, A. P. Morse, H. H. Newton, R. R. Peebles, B. F. Robinson, J. E. Robinson, F. S. Slosson, John Stephan, J. C. Stephan, B. Strickland.

J. R. Daniels, Dentist, South Side Public Square, over Hartness and Shannon's Drug Store, corner Ontario Street. An upper or lower set of teeth \$10.

Alex. B. Halliwell, M. D., Surgeon Dentist, 85 Michigan St. One door from Ontario Street, Cleveland, Ohio. Dr. H. returns many thanks for the great patronage he has been favored with for the past twelve years, and will be pleased to see

his old, and as many new patrons as may please to call at his new establishment. This "ad" is accompanied with a picture of Halliwell's Block.

C. R. Butler, D. D. S., all operations in dentistry made in the best manner. Office No. 282 Superior Street. Artificial teeth mounted on continuous gums, gold and vulcanized rubber base. Population 67,500.

1867-8.—A. Ackerman, N. H. Ambler, H. L. Ambler, N. M. Beekwith, F. C. Briggs, I. W. Brown and Burns, S. B. Burnham, C. R. Butler, J. R. Daniels, Halliwell and Greenfield, W. P. and R. Horton, Jacob Karl, Jos. King, A. P. Morse, H. H. Newton, R. R. Peebles, B. F. Robinson, J. E. Robinson, F. S. Slossen, John Stephan, Benj. Strickland.

Bigelow Lodge No. 243. Stated meetings are held in Masonic Hall, Franklin Street, on the second and fourth Wednesdays in each month. (This Lodge was named for A. D. Bigelow, dentist, and J. E. Robinson, dentist, was the Tyler).

G. W. Clark, Druggist, Dental Supplies.

Northern Ohio Dental Association

About thirty-five dentists, mostly from Northern Ohio, met in Tremont Hall, Cleveland, Nov. 3, 1857, and organized the Northern Ohio Dental Association which is now large and prosperous; on its fiftieth anniversary the writer had compiled and published for the association its "Partial Transactions," including pictures and biographical sketches of some of those who helped to organize it and also a picture of Tremont Hall, which was located on the North side of the Public Square, just across from the present Court House, on the corner of the alley (now W. 2nd St.), which leads from the Square (or as it was called then, Rockwell St.) to St. Clair St. The building was originally two stories, and Mr. Bramley kept a bakery in the first one and the Hall was in the second, later the building was remodeled (and named Park Building), and one story was added and L. A. Keppner kept gentlemen's furnishings on the first floor and the upper floors were used for offices, the hall being done away with. Later on S. C. Greene bought out Keppner and continued the same business.

The hall was used for fairs, dances, spiritual meetings, etc., but in 1883 the building was razed and Wick Block erected on the site. For further information see Partial Transactions of the Northern Ohio Dental Association, by H. L. Ambler.



TREMONT HALL, CLEVELAND, OHIO

Public Square, Cleveland, 1857

Tremont Hall indicated by white arrow

Courtesy of the Western Reserve Historical Society

Forest City Society Dental Surgeons

Sept. 12, 1868, the following named dentists met at W. P. Horton's office in Cleveland for the purpose of forming a dental society: B. Strickland, F. S. Slosson, Corydon Palmer, L. and C. Buffett, C. R. Butler, B. T. Spelman, H. L. Ambler. B. Strickland, chairman; L. Buffett, Rec. Sec.

An adjourned meeting was held at the same place Oct. 3, 1868, to transact business and consider a constitution and by-laws.

Dec. 1, 1868, an adjourned meeting was held at L. and C. Buffett's office and a name, and constitution and by-laws were adopted, and officers elected, viz.: B. Strickland, Pres.; F. S. Whitslar, Vice-Pres.; H. L. Ambler, Rec., Sec.; C. Buffett, Cor. Sec.; F. S. Slosson, Treas.; C. H. Harroun, Corydon Palmer, C. R. Butler, Councilmen.

June 1, 1869 the meeting was called to order by the president and the following signed the constitution and by-laws: B. Strickland, F. S. Slosson, C. and L. Buffett, C. R. Butler, F. S. Whitslar, Corydon Palmer, B. T. Spelman, H. L. Ambler, A. Terry.

A clamp was shown for closing the opening of Steno's duct and it was on the same principle as the one on the market now (1909), but the end which covered the opening of the duct had a disk of pipe-clay in it.

For pericementitis, several are using one-sixth grain morphin, or a drop of aconite tincture injected locally over the root of the diseased tooth.

H. L. Ambler presented a patient with an artificial nose (he made) of pink vulcanite, which was held in place by a gold pin passing into an opening in the nares and further secured by spectacles.

Arsenous acid is decried for devitalizing pulps—pulverized mineral cobalt is better.

Corydon Palmer, for convenience in describing teeth or operations on them, divides the mouth (teeth) beginning at the mesial line, into right and left superior (upper) and right and left inferior (lower) sections; the teeth are to be numbered from one to eight inclusive in each section and accompanied with a set of characters specifying what kind of an operation had been made and its location in the tooth. Maybe this was the first time such a division had been presented. June 7, 1870, officers elected for the ensuing year: Pres., C. R. Butler; Vice-Pres., L. Buffett; Rec. Sec., H. L. Ambler; Cor. Sec., C. Buffett; Treas., B. Strickland; Councilmen, Corydon Palmer, A. Terry, F. S. Whitslar.

On behalf of this society Corydon Palmer appeared before the American Dental Association and exhibited and explained his beautiful models of the natural teeth, in regard to which, special mention is made in the report of that society.

He also presented specimens of old, well-seasoned locust wood, to be used for wedges.

June 6, 1871, officers elected for the ensuing year: Pres., C. R. Butler; Vice-Pres., B. T. Spelman; Rec. Sec., H. L. Ambler; Cor. Sec., C. Buffett; Treas., L. Buffett; Councilmen, C. Palmer, C. H. Harroun, F. S. Slosson.

H. L. Ambler said that he had furnished the Ohio Farmer, a paper published here, with a series of articles on "Preservation of the Teeth;" these articles were written at the solicitation of the editor. He also reported a case where he made a restoration of the right nasal ala with celluloid.

C. R. Butler reported a case where he extracted an upper cuspid which was imbedded horizontally in the alveolar process.

In correcting irregularities of the teeth C. H. Harroun uses Watt and Williams metal for stay plates.

B. T. Spelman uses gold band and ligatures.

C. R. Butler used bands of pyroxiline. Corydon Palmer exhibited some beautiful filling instruments which he made particularly for reaching parts of a cavity the most difficult to fill successfully by using the hand mallet.

B. T. Spelman drills eight or more small holes on the end of a root, then fills and connects them with gold foil even with the

end, and then puts on number 120 foil to make a covering for the end of the root; then drill into the root-canal and set a pivot tooth.

C. R. Butler said that heavy gold foil (30 to 60) would produce a better edge than light foil, and it does not require any more force to condense, and it also makes a stronger contour filling and a better masticating surface with less labor than with light foil. Root-canals he fills with zinc—oxychlorid and fibres of gold.

The Ohio State Board of Dental Examiners (J. Taft, M. DeCamp, H. A. Smith) being in session here, were invited, and accepted an invitation to attend our meeting. J. Taft and M. DeCamp joined our society.

Cleveland, Ohio, May 7, 1871.

This is to certify that I, the undersigned, being desirous of becoming a member of the Forest City Society of Dental Surgeons, do hereby present this application, in compliance with the constitution of said society.

Most respectfully,

J. TAFT.

Recommended by Corydon Palmer and C. R. Butler.

June 3, 1873, the Society met at the office of C. R. Butler and later at L. and C. Buffett's, and after transacting some miscellaneous business and discussing different subjects, it was moved and carried, That the treasurer be instructed to return to the members—pro rata—whatever money there was in his hands. Adjourned sine die.

At the last meeting B. T. Spelman read the following: Throughout the country the laboratories of many of our best men are closed, and the greatest portion of the balance are in a neglected and fruitless condition. Men to whom we confidently looked to bring out something new and valuable in this department, have left it in sorrow and disgust, and since the advent of rubber nothing has been brought out in the mechanical department which will not die when rubber makes its exit. Honest men have discovered the uselessness of rubber for dental plates. There is a growing desire on the part of the profession and patients to return to the time honored gold plates and continuous gum work.

Cleveland City Dental Society and Dentistry in Public Schools

A. W. Harlan, of Chicago, later of New York, when at the Ohio State Dental Society which met in Toledo, 1886, suggested to H. Barnes the desirability of forming a dental society in Cleveland and he mentioned it to other Cleveland dentists who were there and they agreed to try and do so when they reached home, and that their efforts were successful, is shown by the following:

Nov. 6, 1886 the dentists who met at the office of D. R. Jennings and decided to form a local dental society were: Henry Barnes, P. H. Keese, H. F. Harvey, J. Stephan, J. E. Robinson, S. B. Dewey, H. M. Albaugh, J. R. Owens. The chairman appointed a committee to present a constitution and by-laws at the next meeting. D. R. Jennings, Chairman; J. R. Owens, Sec.

At a meeting held Nov. 25th, a constitution and by-laws were adopted. Dec. 4th a permanent organization was formed and officers elected viz.: Pres., D. R. Jennings; Vice-Pres., J. Stephan; Sec., P. H. Keese; Treas., S. B. Dewey. Several subsequent meetings were held at Cogswell's dental depot in the Benedict building.

Charter members: D. R. Jennings, J. E. Robinson, C. R. Butler, Lewis Buffett, H. H. Newton, John Stephan, S. B. Dewey, P. H. Keese, Henry Barnes, G. R. Goulding, J. R. Owens, I. E. Sampsell, J. R. Bell; in April, 1911, this number had increased to 136 active members.

The society generally met on the first Monday of each month—except Aug. and Sept., at three P. M., but later on there was a five o'clock dinner accompanied with a "paper" and discussions; this arrangement visibly increased the attendance and it has been continued up to the present, now meets every month except June, July, Aug., Sept., Dec. The first meeting at "The

Hollenden" was Jan. 10, 1891; the last Feb., 1903. There have been two "Ladies' Nights," 1897, 1908.

This society has been a great factor for good, professionally and to the commonwealth.

Besides the regular papers by members, some of them have given clinics before the society and at their offices and also presented interesting cases, appliances, methods, formulae, etc.

Some of the best dental talent from other cities has appeared before the society for papers and clinics. Through the educational committee and the Cleveland Municipal Charity Clinic, the public has been greatly benefited.

Another step in advance, was the adoption of a new constitution and by-laws (Apr., 1909), making this a component society of the Ohio State Dental Society.

This is in keeping with the best thought of the day for the purpose of increasing the membership and effectiveness of dental societies; a few states have already applied the idea of making all societies in the respective states, component societies of their state society and it has brought about gratifying results.

EX-PRESIDENTS.

1886 D. R. Jennings.	1898 H. L. Ambler.
1887 I. W. Brown.	1899 J. F. Stephan.
1888 J. R. Owens.	1900 W. A. Siddall.
1889 S. B. Dewey.	1901 W. A. Price.
1890 H. Barnes.	1902 F. J. Spargur.
1891 W. T. Jackman.	1903 J. W. McDill.
1892 H. F. Harvey.	1904 G. N. Wasser.
1893 W. H. Whitslar.	1905 D. H. Ziegler.
1894 J. R. Bell.	1906 J. M. Yahres.
1895 C. R. Butler.	1907 M. C. Ramaley.
1896 G. H. Wilson.	1908 F. H. Acker.
1897 J. W. Van Doorn.	1909 W. G. Ebersole.
	1910 J. T. Newton.

In 1897 the City Dental Society appointed G. H. Wilson, W. A. Price, W. G. Ebersole, as a Committee on Dental Instruction in the public schools, and after consultation with Supt. Jones they prepared a card of valuable instructions, on the nature, use and care of the teeth, which were given through the

school teachers to the pupils, thus doing some good. Another item accomplished, was a slight betterment of the chapter on the teeth in the school physiology.

Much later the Committee on Oral Hygiene; W. G. Ebersole, J. R. Owens, W. A. Price, obtained permission to examine the teeth of children in four schools—this was done by members of the Society June 14, 1909, and it was found that ninety-seven per cent. needed dental services. Later, permission was given to examine the teeth of all the public school children and maintain during 1910, four clinics for free care of teeth of needy ones. The examination was made and clinics established; the School Board furnishing only rooms, heat and water. It was planned that each member of the Society should give thirty-six hours of time, or an equivalent in money; also courses of lectures on oral hygiene will be given by different members, to teachers, children and parents. Lessons were given the children to teach them how to thoroughly masticate their food. After the clinics had been in operation some time, the special class (40) at Marion school was given a mental examination and it was shown that they had made an increase in efficiency of 37.44%. Two clinics were also established in parochial schools.

F. H. Acker is director and H. R. C. Wilson, secretary of the clinics. All clinics were discontinued at the beginning of the holiday vacation, Dec., 1910.

Dealers in dental supplies, through the Oral Hygiene Committee National Dental Association, furnished supplies for the clinic for one year. The equipment was loaned by the different manufacturers, to the Oral Hygiene Committee National Dental Association, to be used in Cleveland one year. The Dental Manufacturers' Club contributed \$3,000 to carry on the work of oral hygiene, part of which was used in Cleveland. The State Dental Society was instrumental in securing part of the supplies. Members of the Cleveland Dental Society contributed to a fund which enabled them to provide for clinicians and incidental expenses.

The Oral Hygiene campaign opened here Mar. 18, 1910, at the Gray's Armory where several noted speakers made addresses. For further particulars see Dental Summary, Feb., Mar., June, 1910.

National Dental Association

The American—now National—Dental Association met here in 1862 at the rooms of Atkinson and Butler, then adjourned to the Cleveland Medical College—now Medical Department Western Reserve University; W. H. Atkinson was Pres. and J. Taft, Sec.; at the end of three days adjourned to meet in Philadelphia, 1863.

The Association met here again July 25-28, 1911, with Edward S. Gaylord, Pres., H. C. Brown, Sec.; a large portion of the 750 members were present; thus including guests, there was a large attendance. The Engineer's Hall was used for general meetings; Gray's Armory for Clinics; Chamber of Commerce Assembly Hall for exhibitors.

Dental Department Homœopathic Hospital College

Name changed in Dec., 1894, to Cleveland University of Medicine and Surgery and a Dental Department was organized 1891, which graduated its first class 1892. Classes were graduated each subsequent year up to Sept., 1896, when the department was closed.

The first faculty consisted of W. H. Whitslar, G. H. Wilson, J. E. Robinson, S. B. Dewey, Henry Barnes, L. P. Bethel, I. Sampsell. G. E. Bishop says that in the summer of 1890, when a dental student, he suggested to his brother H. D. Bishop the idea of establishing the above department, the latter being a member of the faculty recommended the idea to his associates and the department was organized.

Dental Department Western Reserve University

The Dental Department Western Reserve University was organized Mar., 1892, with C. R. Butler, Dean. Catalog 1893 contains names of Faculty, viz.: W. H. Whitslar, Sec.; G. H. Wilson, H. F. Harvey, H. L. Ambler, J. R. Owens, J. F. Stephan, J. W. Van Doorn, D. R. Jennings, Harry Garfield.

At the close of the session C. R. Butler resigned and H. L. Ambler was elected Dean, and he resigned in 1906. The Department moved to the Bangor Bldg., in 1896, where it had rooms well equipped; it remained there until 1908 when it was moved to 2450 East 9th St.

In 1903 H. M. Brown of Ashtabula, assumed the financial obligations and took charge of the Department, which remained nominally a Department of Western Reserve University. In 1904-5 the old faculty members resigned and H. M. Brown secured T. J. McLernon, Dean, H. E. Friessell, E. E. Belford; other members were young men from dental and medical schools in the city.

T. J. McLernon resigned 1907 and E. E. Belford was chosen Dean, and he still remains.

The Dentist's Magazine

The Dentists' Magazine was established by the Cogswell Dental Supply Co., with W. T. Jackman, W. G. Ebersole, V. E. Barnes, G. H. Wilson as editors. The first issue appeared Dec., 1905; it contained one hundred pages of text each month and was well illustrated and printed, with a new cover design each month. In 1909 the above Co. sold to Ransom and Randolph and the Magazine passed into the Dental Summary of which R. and R. were the publishers.

The Rose Building

The Rose Building was erected in 1900 and is the largest office building in Ohio, and has one hundred offices especially equipped for dentists, and they were all occupied before 1902; these offices have water, steam and sewer lines in front near windows, compressed air, gas and electric lines are conveniently located, and minute details are carried out to suit each practitioner.

R. K. PELTON, *Manager*.

Hospital for Epileptics

J. W. Culver was appointed a member of the medical staff of the Ohio Hospital for Epileptics (Gallipolis) in June, 1903, and served one year. As the state law did not provide for resident dentists at that time, the appointment was made to fill a vacancy in the medical staff. Dental work was assigned to him, and an office was equipped for this purpose. Aside from the practice of dentistry, considerable time was given to operations in oral surgery not ordinarily done in the dental office. He assisted in giving anesthetics for major operations and also assisted in post-mortem work.

State Hospital

Previous to 1905, at the State Hospital in Cleveland, if a patient needed the services of a dentist, one was called in, as there was no resident dentist nor one who paid regular visits, but about this time J. J. Rosensteel began to practice at the hospital for one-half day each week, and continued to do so for about two years, when on Dec. 1, 1907, Dr. C. H. Clark, the superintendent, appointed E. M. Herrick as resident dentist with the rank of assistant physician and he still holds the position. Dr. Clark says he hopes to make the appointment a permanent one.

Municipal Dental Clinic

Cleveland Municipal Dental Clinic in charge of Cleveland Dental Society. At a meeting of the society Apr. 2, 1906, G. H. Wilson spoke of the opportunity of helping the children of the worthy poor in the city. He said that the Board of Public Service would provide materials and a place for charitable work. As a committee to report on definite plans for this work, the president (D. H. Ziegler) appointed G. H. Wilson, W. T. Jackman, W. G. Ebersole, H. L. Ambler, J. R. Owens.

May 7, 1906, the Committee reported viz.: "Your Committee has investigated and finds that the city, through Director Cooley and Supt. Emde desires the dental society to co-operate with them in caring for the teeth of the poor children of the city."

The city will provide and properly equip a room for a dental office and will assign Mr. Turner to care for the room and assist the dentist who does the operating. Your Committee recommends, that the society agrees to furnish the services of one dentist for as many afternoons as necessary for one year, also that the president appoint a Committee of fifteen—one of whom shall be himself—to organize and superintend this charitable work which shall be done in the name of this society."

The president appointed: G. H. Wilson, W. T. Jackman, J. R. Owens, H. L. Ambler, W. G. Ebersole, G. N. Wasser, F. J. Spargur, G. F. Woodbury, H. Barnes, J. F. Stephan, H. F. Harvey, J. R. Bell, M. D. Neff, J. T. Newton.

This Committee met and later reported: "That the city will provide a room in the City Hospital with an equipment for simple operative dentistry, also furnish an assistant to the operator whom this society shall select and pay."

F. H. Acker volunteered one-half day per week and the Society agreed to pay him for a second half day per week for one year. The money to pay him was raised by subscription among the members of the society, by the finance Committee (Ebersole, Woodbury, Newton). The Committee of fifteen elected a Board of Directors, viz.: Ambler, Wilson, Owens,

Woodbury, Ziegler, to have full charge with power to act in all matters pertaining to the Charity Clinic.

In order to obtain patients, blank cards were given to the principals of a few public schools for distribution to the worthy poor; these cards were filled in with the names, residences and grades of pupils and were then countersigned by the Principal; then they were presented to the clinician who made a record, viz.: Name, address, school, grade, age, sex, nationality, parents living, mouth clean or foul, physical condition, temperament, tooth-structure, arch, occlusion, etc.

Oct., 1907, indigent poor operated for: German 22, Bohemian 21, Hungarian 8, Irish 7, Italian 4, English 1. Operations consisted of cleaning, regulating, filling with amalgam, cement, gutta-percha, pulp-treatment, root canal fillings and extracting. This clinic was opened Oct. 16, 1906, and continued about eighteen months, when it was closed because the city would not pay the clinician. The history of the establishment of the clinic, viz.: H. L. Ambler suggested to Director of Charities, H. R. Cooley, that such a clinic be opened, and he, after consulting with G. H. Wilson, and perhaps other dentists, agreed on the part of the city to establish the clinic at the City Hospital. H. R. C. Wilson assisted by acting through the teachers in neighboring schools to secure patients, thus providing plenty of work for the clinician after May 6, 1907.

The establishment of the Municipal Dental Clinic was the main factor which led to the appointment of a dentist to the Cleveland Boys' Home, and also one of the main factors which led to the establishment of free clinics in the public schools.

Cleveland Boys' Home

Oct., 1908, H. R. Cooley, Director of Charities, appointed H. E. Moffett, dentist, to the Cleveland Boys' Home, at Hudson, O., and he began operations Dec. 31, spending one day each week at the "Home," and using his own judgment, in caring for the boys' teeth.

The city furnishes the office and materials, and pays him a salary. The work consists in fillings of cement, gutta percha

and amalgam, and treating and saving teeth if possible, if not, they are extracted. This good work was carried on for ten months, then it was discontinued, owing to a change in the Cleveland municipal government.

Cleveland Dental Library

C. R. Strong certainly deserves our thanks, for upon retiring from practice in 1907, he donated his dental library of thirty bound volumes and seventy volumes of dental journals, as a foundation for the establishment of a library. Later several dentists met and organized the Cleveland Dental Library Association, and adopted a constitution and by-laws, and elected G. H. Wilson, Pres.; H. L. Ambler, Vice-Pres.; H. R. C. Wilson, Sec.; V. E. Barnes, Treas. Arrangements were made through W. H. Brett with the Public Library Board so that the dental library (at the Hough Ave. Branch of the public library) becomes a part of the reference Department of the Cleveland Public Library. G. H. Wilson has donated sixty bound volumes besides journals, and others have added books and journals.

American Circulating Dental Clinic

The American Circulating Dental Clinic was founded by S. M. Weaver and the plan is to have seven centers for work and exhibition, and at each center there will be a Committee of six to collect dental technic specimens and send them to the central committee here, then they will be shown at a clinic before the city dental society, then when mounted, (arranged and cased), they will be sent to the second city in the circuit, and so on until they have made the round and finally return here, when the specimens will be replaced with new ones and started around the circuit. The cities included are Cleveland, Philadelphia, Kansas City and Chicago.

Dental Specialists

Orthodontia, V. E. Barnes, F. M. Casto, W. E. Newcomb, L. A. Krejci.

Prophylaxis, L. W. Brown, J. W. Jungman, W. C. Teter, Miss I. E. Graves.

Crown, Bridge and Inlays, C. G. Myers.

Anesthetics and Extracting, C. K. Teter.

Prosthesis, G. H. Wilson.

Rhymster, T. H. Terry. (W. R. U. Dental Dept., 1902).

Dental Supplies

This list has nearly all been taken from directories, 1837-1911.

Cleveland Herald, Dec. 7, 1826.

N. E. Crittenden next door to the Franklin House has on hand a quantity of gold-leaf. (Possibly this was gold foil, as in those days dentists called their gold for filling teeth—leaf instead of foil).

In 1836 B. Strickland advertised to supply the profession with incorruptible teeth he manufactured. In 1838 he kept gold-leaf (foil) for sale.

In 1840 M. L. Wright was here and soon after he made full dentures of porcelain, and later manufactured artificial teeth and sold them to dentists, and in 1842 he kept dental and surgical instruments for sale.

In 1846-7 W. A. Clark and Wm. Fiske (Clark and Fiske), kept a drug-store at No. 11 Superior St., and it is fair to presume that they kept some dental supplies.

In 1848 Wm. Fiske advertises drugs, medicines, dye-stuffs, gold-leaf, dental and surgical instruments, teeth and foil, No. 11 Superior St.

Fiske was at above location until 1857 and may be longer, then G. W. Clark succeeded him in 1861.

1850 B. F. Robinson manufactured Mineral Teeth for his own use, and also sold them to dentists.

1852 Fiske and Hall, Druggists, No. 11 Superior St. kept dental supplies.

1857 Wm. Fiske, Druggist, No. 23 Superior St., kept dental supplies.

1861 G. W. Clark, Druggist, 119 Superior St., kept dental supplies.

1863-4 G. W. Clark Druggist, 119 Superior St., Dental Supplies.

1864-5 same "ad".

1867-8 same "ad".

1870-1 same "ad".

1872-3 same "ad".

1875 G. W. Clark, Druggist, 119 Superior St., Dental Supplies; he was succeeded by Edwin Smith & Son.

1876 Edwin Smith & Son, Druggists, 119 Superior St., Dental Depot.

1877 same "ad" (in city directory).

1878 Cleveland Dental and Surgical Depot, J. Willey Smith, successor to Edwin Smith & Son, 234 Superior St. Sigr of Crystal Prismatic Mortar. The only complete stock of Dental and Surgical Instruments in Northern Ohio.

Having greatly enlarged my Dental Department, I am prepared to furnish at lowest rates all material used by the profession, including Office Furniture and complete sets of Instruments. Sole manufacturer of Diamond Teeth, Diamond Rubber, Diamond Amalgam and Diamond Tooth Powder, Crutches, Splints, Trusses, Supporters, Bandages, Elastic Stockings, Electro-Magnetic Machines, etc.

1879 Dental and Surgical Goods, J. Fenton, 23 Prospect St. J. Willey Smith, Garretts' Block, where Williamson Bldg. now stands. 1880 B. S. Cogswell, Dental Depot, dealer in Dentists' Materials of every description, Garretts' Block, cor. Public Square.

1881 Cogswell & Gee, Dental Goods, 306 Euclid (Garrett's Blk).

1882 same "ad" (now called 5 Euclid Avenue).

1883 same "ad" (now called 5 Euclid Avenue).

1884 same "ad" (now called 5 Euclid Avenue).

1885 Same "ad" (now called 5 Euclid Avenue). Wilcox & Hammond, Dental Goods, 19 Euclid Ave.

1886 B. S. Cogswell & Co., Benedict Bldg. A. A. Wilcox, Benedict Bldg., 29 Euclid Ave.

1887 same "ads" for Cogswell and Wilcox.

1888 B. S. Cogswell & Co., Dental Goods, Benedict Bldg., 29 Euclid.

1890 same "ad".

1891 same "ad".

1891 A. A. Wilcox, 8 Euclid Ave.

1892 B. S. Cogswell & Co., 29 Euclid. A. A. Wilcox, 8 Euclid. Cleveland Nitrous Oxid Co.

1893 Cogswell Dental Supply Co., 29 Euclid Ave.

1894 same as 1893. Cleveland Dental Mfg. Co., Arcade.

1895 Cleveland Dental Mfg. Co., Arcade. Cogswell Dental Supply Co., 29 Euclid.

1896 Cogswell Dental Supply Co., 29 Euclid. Cleveland Dental Mfg. Co., Arcade. Independent Dental Co., 49 Wood St. Taking 50 cities in U. S. 1895, there was one dentist for every 2,190 inhabitants.

1897 Cogswell Dental Supply Co., 29 Euclid. Cleveland Dental Mfg. Co., Arcade. The Parsons Co., 266 Erie, Dental Batteries. Thomas Pettifer & Co., 261½ Water St. U. S. Dental Mfg. Co., Starkweather Ave.

1898 Cogswell Dental Supply Co. Cleveland Dental Mfg. Co. Douhet Dental Mfg. Co. Weyandt & Johnson.

1899 Cogswell Dental Supply Co. Cleveland Dental Mfg. Co. U. S. Dental Mfg. Co. Diamond Dental Mfg. Co. Thos. Pettifer & Co. Weyandt & Johnson.

1900 Cleveland Dental Mfg. Co., Arcade. Cogswell Dental Supply Co., 29 Euclid. U. S. Dental Mfg. Co. Diamond Dental Mfg. Co. Douhet Dental Mfg. Co. Weyandt & Johnson.

1901 Cleveland Dental Mfg. Co., Arcade. Cogswell Dental Supply Co., Rose Bldg. Consolidated Dental Mfg. Co. Dia-

mond Dental Mfg. Co. U. S. Dental Mfg. Co. Douhet Dental Mfg. Co. A. A. Wilcox, 74 Frankfort St. Weyandt & Johnson. Western Reserve Dental Co.

1902 The Cleveland Dental Mfg. Co. The Cogswell Dental Supply Co. U. S. Dental Mfg. Co. Cleveland Dental Laboratory. Consolidated Dental Supply Co. Cuyahoga Dental Supply Co. Diamond Dental Mfg. Co. The E. J. Douhet Mfg. Co. The Electric & Specialty Dental Mfg. Co. Forest City Dental Laboratory. Hurd Dental Supply Co. A. A. Wilcox.

1903 The Cleveland Dental Mfg. Co. The Cogswell Dental Supply Co. U. S. Dental Mfg. Co. Cleveland Dental Laboratory. Consolidated Dental Mfg. Co. Cuyahoga Dental Supply Co. Diamond Dental Mfg. Co. H. A. Smith, Dental Motors. The Jandus Electric Co.

1904 The Cogswell Dental Supply Co. U. S. Dental Mfg. Co. Cleveland Dental Laboratory. Cleveland Dental Mfg. Co. Consolidated Dental Supply Co. Cuyahoga Dental Supply Co. Diamond Dental Mfg. Co. Forest City Dental Laboratory. Horton Electric Obtunding Co. Marcellus Jewett. Myers' Dental Obtunder Co. A. M. Price. H. A. Smith.

1905 The Cogswell Dental Supply Co. Consolidated Dental Mfg. Co. U. S. Dental Mfg. Co. Cleveland Dental Mfg. Co. Cleveland Dental Laboratory. Forest City Dental Laboratory. Cuyahoga Dental Supply Co. Diamond Dental Mfg. Co. E. J. Douhet. Electric Dental Specialty Co. Horton Electric Obtunding Co. Marcellus Jewett. J. C. Kline. Loeb Over-Top Tooth Co. Myers Dental Obtunder Co. National Dental Supply Co. H. A. Smith.

1906 Cleveland Dental Laboratory. Cleveland Dental Mfg. Co. Cogswell Dental Supply Co. Consolidated Dental Mfg. Co. Cuyahoga Dental Supply Co. Diamond Dental Mfg. Co. Electrical Dental Specialty Co. F. L. Evans. Forest City Dental Laboratory. Gold Supply Co. Marcellus Jewett. Myers Dental Obtunder Co. Plastic Impression Rubber Co. H. A. Smith. U. S. Dental Mfg. Co. Weaver Dental Specialty Co.

1907 Cleveland Dental Laboratory Co. Cleveland Dental Mfg. Co. Cogswell Dental Supply Co. Consolidated Dental

Mfg. Co. Diamond Dental Mfg. Co. Electric Dental Specialty Co. Forest City Dental Laboratory. Gold Supply Co. J. C. Kline. Myers Dental Obtunder Co. S. Robinson. H. A. Smith. Teter Mfg. Co. U. S. Dental Mfg. Co. Weaver Dental Specialty Co.

1908 Cleveland Dental Mfg. Co. Cogswell Dental Supply Co. Colonial Dental Laboratory. Consolidated Dental Mfg. Co. Diamond Dental Mfg. Co. John C. Dowd. Electric Dental Specialty Co. Forest City Dental Laboratory. Myers Dental Obtunder Co. H. A. Smith. Teter Mfg. Co. U. S. Dental Mfg. Co. Weaver Dental Specialty Co.

1909 Cleveland Dental Mfg. Co. Cleveland Dental Supply Co. Consolidated Dental Mfg. Co. G. T. Fenker. Forest City Dental Laboratory. Marcellus Jewett. Myers Dental Obtunder Co. Ransom & Randolph Co., Rose Bldg. H. A. Smith. Teter Mfg. Co. U. S. Dental Mfg. Co. Weaver Dental Specialty Co.

1910 Cleveland Dental Supply Co. Cleveland Solder Co. Consolidated Dental Mfg. Co. Dentists' Gold Supply Co. G. T. Fenker. Forest City Dental Laboratory. Chas. G. Myers. Ransom & Randolph Co. S. Robinson. H. A. Smith. Teter Mfg. Co. U. S. Dental Mfg. Co.



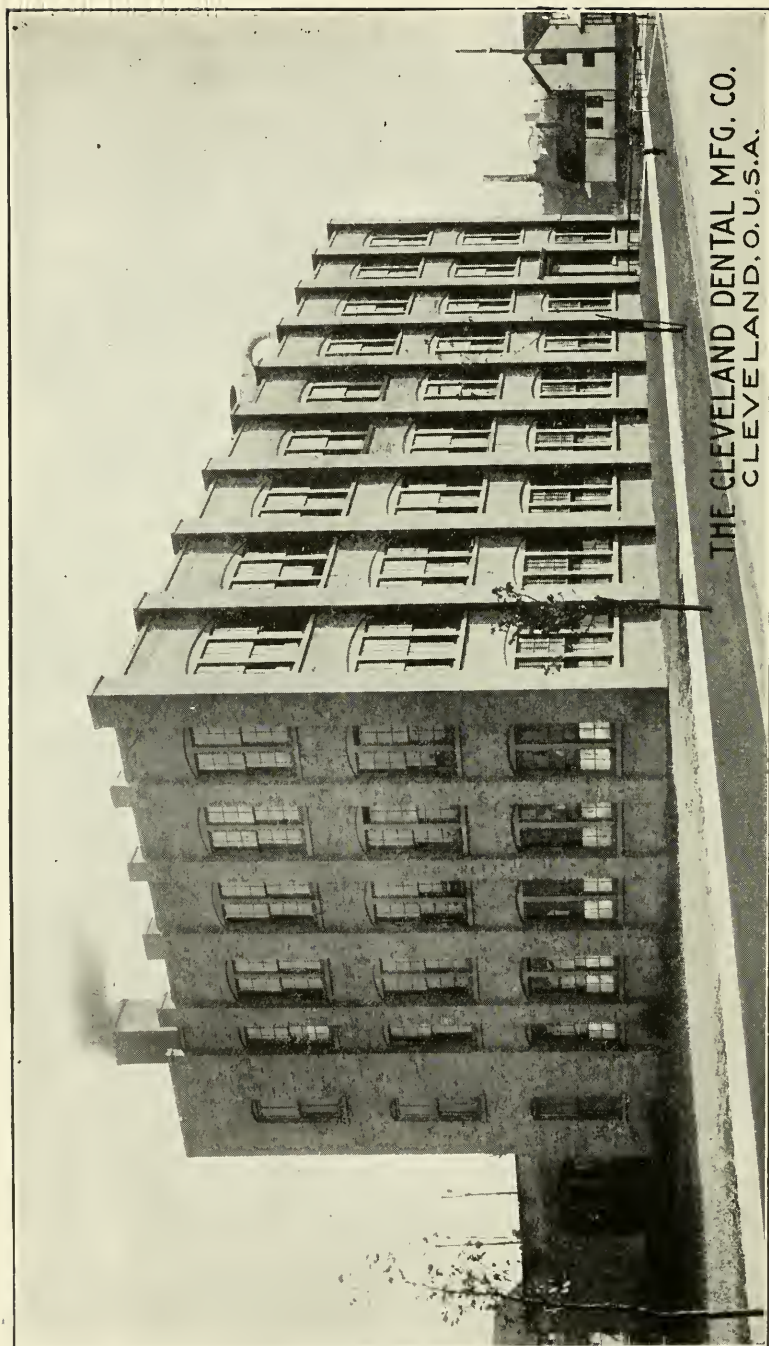
WHEN the Dental Department of Western Reserve University was established by the Trustees of the University in 1892, rooms were assigned to it in the Medical College on the corner of St. Clair and Erie (9th) Streets, but in a few years it outgrew its quarters and was removed to the Bangor Building, 942 Prospect Avenue. Plans are now being considered for a new building for the exclusive use of the Dental College and it is expected that within a year or two these plans will be carried into effect.

The College has had a wonderful growth and numbers among its graduates some of the most prominent men of the profession in the state. The first Faculty consisted of nine members while that for 1909 has twenty members.

In 1892 twenty students were matriculated: in 1908-9 seventy-five students were matriculated. Beginning with 1894 a class has been graduated each year; the first class numbered four, the one for 1908, twenty-four, so that at this date the number of graduates is 363.

The Infirmary of the College is one of the best equipped in the middle-west, with the latest improved chairs, fountain euspidors, etc. The clinic is very large and supplies more material than can be used in the practical work required.

Now located at 2450 East 9th street.



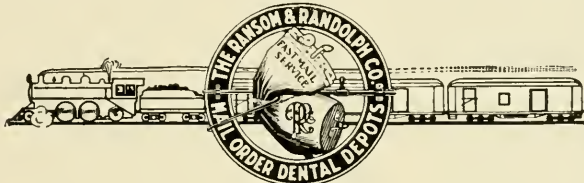
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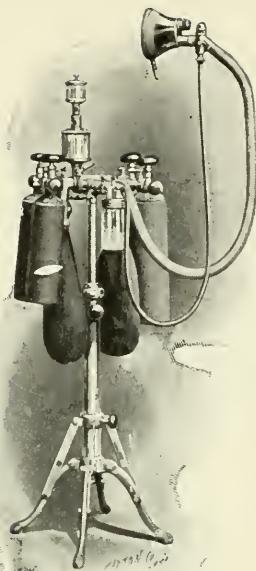
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All vapors pass through the Vapor Warmer which adds greatly to the efficiency of any general anaesthetic agent.

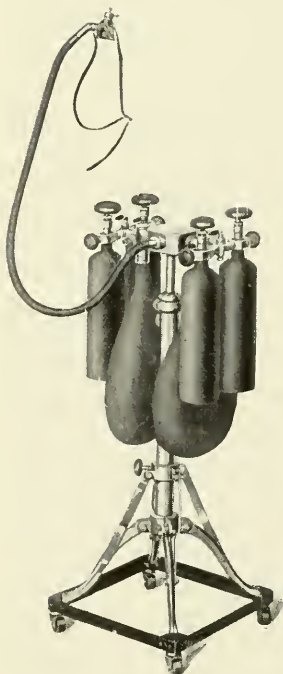
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Cleveland, Ohio



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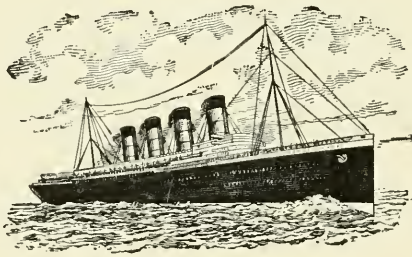
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Best Since 1812

A word about Ney's

THE J. M. Ney Co., of Hartford, Conn., U. S. A., began the manufacture of Dental Golds February 16, 1812, and the factory has never been closed from that day to this except for Sundays and holidays. Beginning in a small way, their business has so increased that their gold products are now the standards by which others are judged, and may be obtained in every country in the world. They make nothing else except golds for dental uses and have specialized in them and improved them continuously for 96 years.

A point that should appeal to the consumer is the fact that all Ney's products are manufactured by hand, and every

pennyweight of the output is under the direct and constant supervision of the principals of the company, so that uniformity of quality is assured, the name "Ney" on Dental Golds being a guarantee of Absolute Quality.

Their line of Plates, Disks, Shells, Solders, Wire of all karats, Foil, Cylinders, etc., etc., comprises the best of the old and the best of the new things in Dental Gold manufacture. Each item has been perfected with nearly a century's experience, beyond the point reached by any other manufacturer.

The price is the same as for any other standard make of golds. If your dealer does not happen to carry them, he will be glad to supply you. The goods themselves are their best advertisement of superior workmanship, color, stability and unexcelled working qualities. They are absolutely dependable for one year or a hundred. They will stand every test.

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MANUFACTURERS OF

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MARVEL OF THE 20th CENTURY IN MALTED FOOD

IT has long been the desire of physicians and druggists to find some means to preserve the *nerve tonic force* and *food value* of *Raw Beef*, so that it would keep indefinitely without refrigeration. The American Malted Food Co. has accomplished this, and this in a *predigested* state. Adding thereto all the food units of malted milk, the incomparable food product of *Thompson's Beef Peptone and Maltose* is offered to the public. The well known chemist and physician, Dr. John G. Spenzer, verifies the above statement by his analysis herewith printed, and furthermore commends the product for "its pleasant and palatable character, and especially, for its *high protein content*."

DR. JOHN G. SPENZER,
Analytical and Consulting Chemist
Office and Laboratory, 422 Rose Building

Cleveland, O., Aug. 12, 1910.

Moisture	9.152	%
Ash (Inorganic Compounds)	4.062	
Fat	7.035	
Insolubles (not Proteins)	0.315	
Insoluble Protein	0.210	
Soluble Proteins (with meat basis like Creatine, etc.)	22.900	
Total Proteins	23.110	23.110
Dextrine	13.880	
Maltose, Lactose and other sugars	39.890	
Total Soluble Carbohydrates	53.770	53.770
Loss in Analysis	2.556	
	100.000	

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